

Voluntary Remediation Program July 2013 Semiannual Progress Report

Prepared for
Former MacGregor Golf Company Site
HSI Site No. 10398
Albany, Georgia
July 30, 2013

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Submitted to the Georgia Environmental Protection Division

On Behalf of
Brunswick Corporation
Albany Sport Co.
Albany Partners, LLC



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Section 1

Introduction

This Semiannual Progress Report for the Former MacGregor Golf Company Site (Site) was prepared by Brown and Caldwell (BC) on behalf of Brunswick Corporation, Albany Sport, Co., and Albany Partners, LLC (the Group) for submittal to the Response and Remediation Program of the Land Protection Branch of the Georgia Environmental Protection Division (EPD). The Site is located at 1601 South Slappey Drive in Albany, Dougherty County, Georgia (Figure 1). The Site is a participant in EPD's Voluntary Remediation Program (VRP) and is listed on EPD's Hazardous Site Inventory (HSI) as Site No. 10398. This report describes the work performed related to the Site from the last Semiannual Progress Report dated January 30, 2013 through July 30, 2013.

1.1 Background

The Former MacGregor Golf Company Site was accepted into the VRP on July 30, 2012. The Site history, description, regulatory history, and previous environmental work are described in detail in the Compliance Status Report (CSR [BC 2006]), Revised CSR and Corrective Action Plan (CAP [BC 2008]) and subsequent addenda (BC 2009) submitted in compliance with the former Hazardous Site Response Act (HSRA) Program (now part of EPD's Response and Remediation Program). Additionally, soil and groundwater data were also submitted to the EPD in the April 2011 VRP application, February 2012 Revised VRP Application and January 2013 Semiannual Progress Report. In summary, since 2002, the Group has conducted zero valent iron pilot testing in the source area, soil and groundwater delineation, and groundwater monitoring.

1.2 Report Organization

This report presents the work conducted from January 30, 2013 to July 30, 2013, and includes the results of groundwater level measurements, groundwater sampling, and soil sampling.

This report is organized into seven sections. The present section references the project background and provides an outline of the report. The work performed during this period is described in Section 2.0, and Section 3.0 presents the results of the work conducted this period. Section 4.0 presents the updated Conceptual Site Model. Future work presently anticipated to complete the VRP objectives is presented in Section 5.0. The Engineer's services this period are summarized in Section 6.0. Limitations associated with the use of this report are noted in Section 7.0. References cited are provided at the conclusion of the report.

Section 2

Work Performed This Period

Work at the Site since the submittal of the last Semiannual Progress Report dated January 30, 2013 involved both groundwater and soil assessment and has consisted of the following tasks:

- Execution of off-Site property access agreement
- Groundwater level measurements
- Groundwater sampling at MW-26 and Spartan MW-2
- Soil sampling in the vicinity of B-4.

These activities are discussed in the following sections.

2.1 Groundwater Assessment

The following groundwater activities were completed in February and May 2013. The monitoring well locations are shown on Figure 2.

2.1.1 Off-Site Access

As discussed in the January 2013 Semiannual Progress Report, the off-Site property owner to the north, Spartan GA, has two monitoring wells located on their property. The monitoring wells, MW-1 and MW-2, are located approximately 250 and 100 feet northeast of MW-26, respectively. The monitoring well closest to MW-26 (MW-2) was installed to a depth of 64.5 feet, which is similar to the depth of MW-26. An access agreement was granted from Spartan GA on January 30, 2013 to sample the existing well MW-2 (Spartan MW-2). The location and elevation of Spartan wells MW-1 and MW-2 were surveyed in May 2013, and the locations are shown on Figure 2.

2.1.2 Groundwater Level Measurement

Groundwater levels were measured in the monitoring wells at the Site and off-Site Spartan wells MW-1 and MW-2 in February and May 2013. Groundwater levels were measured prior to sampling in MW-26 and Spartan MW-2 on February 20 and 21, 2013, respectively.

Site-wide water level gauging was conducted on May 6, 2013. The depth to groundwater was measured in 14 upper water bearing zone wells (MW-1 through MW-4, MW-10 through MW-14, MW-18, MW-19, MW-22, MW-23 and MW-25) and 11 lower water bearing zone wells (MW-5 through MW-7, MW-9, MW-15 through MW-17, MW-24, MW-26, Spartan MW-1 and Spartan MW-2) at the Site. All measurements were completed prior to any purging or other monitoring activities, using a Heron 100-foot water level meter. The measured depths to water were recorded as shown on Table 1. The downhole portion of the water level meter was decontaminated with Alconox® and rinsed with distilled water between wells.

The measured depths to water and the surveyed elevations of the monitoring wells in the upper and lower water bearing zones were used to calculate the groundwater elevations.

2.1.3 Sample Collection

Two groundwater sampling events were conducted this period. Groundwater samples were collected from monitoring well MW-26 and Spartan MW-2 on February 20 and 21, 2013, respectively as proposed in the January 2013 Semiannual Progress Report. The location of these wells is shown on Figure 3. Both of these wells were sampled again on May 8 (Spartan MW-2) and 9 (MW-26), 2013 to confirm the presence of trivalent chromium detected in the February 2013 groundwater samples.

Suspended solids were observed in Spartan MW-2 during the February 2013 sampling event, likely a consequence of it not having been purged or sampled since its installation in 2008. Thus, this well was redeveloped prior to sampling in May 2013, and the well development data were recorded on the well development field data sheet included as Appendix A.

In each sampling event, the groundwater in MW-26 and Spartan MW-2 was purged using low flow/low volume (micro purging) techniques (i.e., bladder pump with disposable polyethylene tubing). During purging, groundwater parameters (turbidity, dissolved oxygen [DO], pH, conductivity, oxidation-reduction potential [ORP] and temperature) were continuously monitored and recorded on the Field Data Sheets included in Appendix A. Water level measurements were also recorded during purging to ensure minimal drawdown. An effort was made to ensure that the rate of groundwater withdrawal did not exceed the rate of recharge in the wells.

The groundwater samples were collected once stabilization occurred, indicated by no increasing or decreasing trends in groundwater parameters for three successive readings and a turbidity of less than 10 nephelometric turbidity units (NTUs). When a turbidity of less than 10 NTU could not be achieved, samples were collected once stabilization occurred and after purging approximately 5 well volumes. The samples were collected directly from the pump discharge into the laboratory-prepared sample bottles, sealed, placed on ice, and delivered to a certified laboratory for analysis. Quality assurance/quality control (QA/QC) samples were also collected as follows:

- Duplicate samples were collected from MW-26 and Spartan MW-2 in February and May, respectively.
- Two equipment blanks were collected, one during each sampling event.

2.1.4 Sample Analysis

After collection, the samples were immediately placed on ice and then delivered to Analytical Environmental Services, Inc. (AES) in Atlanta, Georgia for analysis. Copies of the completed chain-of-custody forms are included in Appendix B with the laboratory reports. The samples from MW-26 and Spartan MW-2 and associated duplicate and equipment blank samples were analyzed for total and dissolved chromium using United States Environmental Protection Agency (USEPA) Method 6010B and chromium was speciated using USEPA Method SW 7196.

The stipulation letter documenting AES's certification to perform these analyses is provided in Appendix C.

2.2 Soil Assessment

As proposed in the January 2013 Semiannual Progress Report, additional samples were collected in the vicinity of boring B-4 to delineate the concentrations of cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC) detected in the B-4 soil sample in November 2012. The B-4 boring was located near the northeastern corner of the storage shed in the former waste disposal area. The soil boring locations are shown on Figure 4.

2.2.1 Sample Collection

Nine soil borings were advanced in the vicinity of the November 2012 B-4 boring to vertically and horizontally delineate the concentrations of cis-1,2-DCE and VC detected above the cleanup standards in the soil sample collected from a depth of 9 to 10 feet below ground surface (bgs) . Five primary borings (B-4a and GP-1 through GP-4) and four secondary borings (GP-5 through GP-8) were installed to a depth of approximately 20 feet bgs using direct push technology (DPT) methods. The five primary borings were installed adjacent to and approximately five feet from boring B-4, and the secondary borings were installed in a ring further from B-4 to horizontally delineate the concentrations detected above the cleanup standards in B-4. In each boring, continuous soil cores were collected in 5-foot increments, logged and screened for total organic vapors using a photoionization detector (PID) and this information was recorded on the Boring Log Form which is included in Appendix A. Four samples were collected from each boring location, resulting in a total of 20 soil samples being collected from the primary borings and 16 soil samples collected from the secondary borings.

The sample with the highest PID measurement, odor and or staining within each of the following intervals was submitted for laboratory analysis. The location of the secondary borings was based on the results of the PID screening and logging of the primary borings. An equipment blank was collected by pouring distilled water over the decontaminated Geoprobe rods used during the installation of GP-8, and was analyzed for the same constituents.

After collecting soil samples, the borings were abandoned by filling the borehole with bentonite pellets. The locations of the borings were measured using a global positioning system (GPS) unit. The borings logs are included in Appendix D.

2.2.2 Sample Analysis

After collection, the samples were immediately placed on ice and then delivered to AES for analysis. The primary samples and the QA/QC samples were analyzed for cis-1,2-DCE and VC by USEPA Method 8260B. The soil samples collected from the secondary borings were placed on laboratory hold pending the results of the primary borings.

Section 3

Results of Work This Period

This section presents the results of the work completed since the submittal of the last Semiannual Progress Report outlined in Section 2. Results of the groundwater level measurement, groundwater sampling of monitoring wells MW-26 and Spartan MW-2, and soil sampling in the vicinity of B-4 are discussed below.

3.1 Groundwater Elevation Data

The well construction data, top of casing elevations, and February and May 2013 groundwater level measurements are presented in Table 1. The May 2013 gauging event showed an increase of between 4 and 14 feet in the water levels in the upper and lower water bearing zones since the last gauging events in November 2012 (January 2012 for the lower water bearing wells). There has been a significant amount of rainfall at the Site since the last reporting period, which likely contributed to the higher groundwater elevations. Groundwater levels will be measured again during the next reporting period and compared to these data.

3.2 Groundwater Sampling Results

The groundwater results for the samples collected in February and May 2013 from monitoring wells MW-26 and Spartan MW-2 are summarized in Table 2. The historical groundwater results are presented in Table 3. The tables show the sample collection dates, the reported concentrations, the method detection limits where specific constituent were not detected, and the applicable delineation and cleanup standards. Figure 3 depicts the recent detections graphically. The groundwater sampling forms are included as Appendix A and the laboratory analytical reports are included as Appendix B. The results of the sample analyses are discussed below.

3.2.1 Inorganic Compounds

The groundwater samples collected from monitoring wells MW-26 and Spartan MW-2 in February and May 2013 were analyzed for total and dissolved chromium, and chromium was speciated. The samples from MW-26 and Spartan MW-2 contained trivalent chromium at concentrations of 0.0959 milligrams per liter (mg/L) and 0.0101 mg/L, respectively, during the February 2013 sampling event. These results are inconsistent with historical results in these wells where chromium was primarily present in the hexavalent state. The reduction of hexavalent chromium to trivalent chromium could have been due to the 13 foot increase in water levels in MW-26 and the elevated turbidity in Spartan MW-2. Another anomaly noted was that the dissolved chromium concentrations were very different from the total chromium concentrations, whereas typically the total and dissolved chromium concentrations are similar.

Based on these results, MW-26 and Spartan MW-2 were resampled in May 2013 to confirm the trivalent chromium concentrations. The May results indicated chromium was in hexavalent form with concentrations of total and hexavalent chromium in MW-26 at 0.0337 mg/L and 0.0307 mg/L, respectively, and less than the laboratory reporting limit of 0.010 mg/L for Spartan MW-2 for total and hexavalent chromium. The delineation and cleanup standards for total and hexavalent chromium are 0.10 mg/L and 0.01 mg/L, respectively. Therefore, delineation has been achieved to the northeast of monitoring well MW-26.

3.2.2 Quality Assurance/Quality Control Samples

No chemicals were detected in the two equipment blank samples and trip blank samples collected in February and May 2013, and the results from analysis of the two duplicate samples were similar to those from the original samples. Thus, the QA/QC samples did not indicate impact to the Site results from field or laboratory methods.

3.3 Soil Sampling Results

The results from the soil samples collected in the vicinity of B-4 are presented in Table 4, illustrated on Figure 4, and described below. The historical soil detections are shown in Table 5. The laboratory analytical reports are included in Appendix B.

3.3.1 Organics

The results of the soil samples collected from the primary borings indicated cis-1,2-DCE present above the delineation and cleanup standard of 7.0 milligram per kilogram (mg/kg) in one boring (GP-1). In the samples from this boring from depths of 4 to 5 feet bgs and 5 to 6 feet bgs, the concentration of cis-1,2-DCE was 13 mg/kg and 120 mg/kg, respectively. The cis-1,2-DCE concentration in the sample from 14 to 15 feet bgs was 0.110 mg/kg, which is well below the cleanup standard and thus cis-1,2-DCE is delineated vertically in this boring. The remaining primary samples analyzed were all less than the delineation and cleanup standards.

Based on the GP-1 results, two samples from the secondary boring to the north, GP-6, at depths similar to those in which the cleanup standard was exceeded, were removed from laboratory hold and were analyzed to delineate cis-1,2-DCE and VC to the north. The results for these GP-6 samples, collected at 2 to 3 feet bgs and 8 to 9 feet bgs, indicated concentrations of cis-1,2-DCE and VC below the delineation and cleanup standards. Therefore, horizontal and vertical delineation has been achieved in the B-4 area and the remaining secondary boring samples were not analyzed.

3.3.2 Quality Assurance/Quality Control Samples

No chemicals were detected in the equipment blank or trip blank samples.

Section 4

Updated Conceptual Site Model

This section presents the updated Conceptual Site Model (CSM) developed for the Site in order to facilitate development of the remedial action objectives for the Site. Also discussed in this section is a fate and transport model that will be used to help demonstrate compliance with the Site cleanup standards under the VRP.

4.1 Elements of the Conceptual Site Model

A three-dimensional CSM was developed for the VRP Application to illustrate the approximate extent of volatile organic compounds (VOCs) and inorganics in the subsurface, and the potential exposure pathways and receptors at the Site. Figures 5 and 6 illustrate plan view and profile diagrams of the CSM, respectively, updated based on the results of the sampling completed during this reporting period.

4.1.1 Ground Surface Features

The Site topography is relatively flat with elevations ranging from 191 to 204 feet above mean sea level (amsl). Stormwater run-off flows primarily towards the intermittent drainage ditch that runs in a westerly direction from north of the former disposal area along the tree line, to the western property boundary. The ditch ends in an on-Site intermittent detention basin. The intermittent drainage ditch and detention basin are normally dry, except following significant rain events. The drainage ditch also receives stormwater run-off from off-Site sources, including a railroad right-of-way to the west.

Soil samples collected from the intermittent ditch and detention basin in 1998, 1999, 2000, 2008, and 2009 indicated elevated concentrations of nickel and chromium. Based on the flow direction of stormwater at the Site, the metals appear to have migrated from the former waste disposal area to the drainage ditch.

4.1.2 Subsurface Features

4.1.2.1 Vadose Zone and Upper Water Bearing Zone

The upper water bearing zone consists predominantly of silty sands, sandy silts, clays and chert of the weathered limestone residuum as illustrated on Figure 6. The thickness of the unconsolidated sediments at the Site is approximately 40 to 50 feet with the thin layers of chert occurring at depths of 18 to 45 feet bgs. Beneath the chert, sediments increase in clay content with clay layers ranging from 1 to 6 feet thick. The lower boundary to this zone is the chalky limestone that occurs in the uppermost Ocala Limestone at 50 to 55 feet bgs.

Figures 5 and 6 show approximately where VOCs (MW-4 area) and inorganics (MW-11 area) are identified in the upper water bearing zone above the groundwater delineation and/or cleanup standards. According to previous reports, waste was poured or spread onto the ground surface in the former waste disposal area. The VOCs and inorganics released at the ground surface would be expected to migrate vertically, under the influence of gravity, with some horizontal spreading with depth through the unsaturated zone and into the saturated zone.

4.1.2.2 Semi-Confining Unit

Between the depths of approximately 50 to 60 feet bgs, a chalky limestone occurs that grades with depth to increasing cementation and induration and decreasing permeability. This layer is laterally continuous across the Site and is interpreted to be a hydraulic boundary to the lower water bearing zone encountered at about 60 feet bgs. However, based on the hydraulic properties (i.e., vertical groundwater velocity, vertical gradient and vertical hydraulic conductivity) of the semi-confining unit and concentrations of VOCs and inorganics in the lower water bearing zone, vertical leakage occurs through the chalky limestone from the upper water bearing zone to the lower water bearing zone.

4.1.2.3 Lower Water Bearing Zone

At approximately 60 feet bgs, the chalky limestone increases in competency and becomes a porous and permeable fossiliferous limestone of the Ocala Limestone that extends to a depth of approximately 170 feet bgs. This unit, the Upper Floridan aquifer, is a principal water supply aquifer and previously served to supply irrigation and fire water to the Site. The Upper Floridan aquifer is confined above and below. The upper confining zone is the chalky limestone as described above, and the lower confining zone is the calcareous clayey Lisbon formation.

Concentrations of VOCs (MW-15 area) and inorganics (MW-24 area) are present in the lower water bearing zone; specifically, the upper portion of the permeable fossiliferous limestone as seen in wells MW-8 and MW-15 at depths of approximately 70 and 80 feet bgs, respectively.

4.1.3 Contaminant Fate and Transport

Moderate to low concentrations of TCE, cis-1,2-DCE, and VC continue to be detected in monitoring wells immediately downgradient of the source area within the upper water bearing zone in MW-4. As described in the February 2012 VRP Application, preliminary modeling using Biochlor®, a one-dimensional axial transport model, has been conducted to evaluate potential COC migration from this area and to provide a preliminary understanding of the fate and transport of the remaining VOCs observed in groundwater. The preliminary modeling demonstrated that VOC concentrations will continue to decline over time and that the current groundwater plume will continue to shrink.

Additionally, a limited interim remedial action consisting of injection of zero valent iron (ZVI) within the upper water bearing zone was conducted in 2003. The interim action created a barrier zone of accelerated attenuation downgradient of MW-4. The barrier has most likely resulted in the decrease in VOC concentrations observed in the remaining downgradient monitoring wells.

4.2 Receptors and Exposure Pathways

The potential exposure pathways for human and ecological receptors are detailed in the February 2012 Revised VRP Application and the Semiannual Progress Report dated January 30, 2013.

Section 5

Status and Future Work

The Group will meet the milestones as required by EPD in their July 30, 2012 letter approving their application to the VRP. Specifically:

- Horizontal delineation on-Site and off-Site
- Vertical delineation
- Remediation, where necessary.

The current status of the Site groundwater relative to VRP delineation and cleanup criteria is discussed below. Near-term steps toward meeting project goals are discussed below. The updated milestone schedule for this work is presented on Figure 6.

5.1 Delineation Status

5.1.1 On-Site Horizontal and Vertical Soil Delineation

Delineation soil sampling conducted in 2005 and 2012 indicated that soil in the B-4 area exceeded the cis-1,2-DCE and VC delineation standards. These chemicals have now been horizontally and vertically delineated based on additional soil sampling conducted in this area in February 2013.

5.1.2 On-Site Horizontal and Vertical Groundwater Delineation

Based on previous groundwater sample results, total and hexavalent chromium were not delineated north of monitoring well MW-26. Therefore, off-Site Spartan well MW-2 was sampled in February and May 2013, and the May 2013 concentrations of total and hexavalent chromium in Spartan well MW-2 were less than the laboratory reporting limit of 0.010 mg/L. Thus, horizontal groundwater delineation has been achieved for total and hexavalent chromium. VOCs were previously delineated on-Site.

5.1.3 Off-Site Horizontal Groundwater Delineation

As discussed above, the results from the groundwater sample collected from off-site monitoring well Spartan MW-2 were less than the delineation and cleanup standard for total and hexavalent chromium. Therefore, off-Site horizontal delineation has been achieved.

5.1.4 Vertical Groundwater Delineation

Vertical delineation has been achieved in the lower water bearing zone in the vicinity of monitoring well MW-26 as total and hexavalent chromium concentrations in this well is less than the delineation standard. In addition, vertical delineation is provided by the absence of total chromium in monitoring well MW-8.

5.2 Status Relative to Cleanup Goals

5.2.1 Groundwater

Total and hexavalent chromium concentrations in monitoring wells MW-24 and MW-26 (hexavalent only) currently exceed the cleanup standards. The groundwater concentrations in MW-4 exceed the cleanup standard for cis-1,2-DCE, TCE, and VC.

5.2.2 Soil

The concentrations of the soil samples collected at B-4 and GP-1 currently exceed the cleanup standard for cis-1,2-DCE and VC (B-4 only).

5.3 Future Work

As total and hexavalent chromium concentrations in the groundwater in monitoring wells MW-24 and MW-26 (hexavalent only) currently exceed the cleanup standards, remedial strategies will be evaluated during the next reporting period for the groundwater in this area.

The groundwater concentrations in MW-4 that exceed the cleanup standards for cis-1,2-DCE, TCE, and VC will be addressed through fate and transport modeling and a uniform environmental covenant (UEC) to restrict the use of groundwater. As discussed in the January 2013 Semiannual Progress Report, the point of demonstration (POD) wells for the groundwater impact in the MW-4 area will be monitoring wells MW-13, MW-14, MW-18, and MW-19. Two rounds of water levels will be collected from the lower and upper water bearing zone wells over the next reporting period to develop potentiometric surface maps and confirm the POD wells. In addition, as discussed above, a UEC will be executed to restrict the use of groundwater.

During the next reporting period, BC will evaluate options to bring the soil in the vicinity of B-4 and GP-1 into compliance with the cleanup standards for cis-1,2-DCE and VC (B-4 only). The concentrations of cis-1,2-DCE and VC in the subsurface soil in borings B-4 and GP-1 (cis-1,2-DCE only) exceed the soil cleanup standards currently developed for the Site using certain default assumptions. Site-specific information and Biochlor modeling will be used to determine if the maximum concentrations left in soil will result in exceedances of the applicable risk reduction standards at the point of compliance or unacceptable health risks to potential receptors. For this Site, the point of compliance is the property boundary as no groundwater water wells have been or will be installed on-Site. A commercial/industrial worker, which was used to develop the default soil cleanup standards, would not be likely to have contact with the impacted soil as it is below 2 feet bgs; however, a construction worker could. Thus, exposure assumptions applicable to a construction worker will be used to determine the potential for unacceptable health risks. Additionally, groundwater samples will be collected at MW-4 twice during the next reporting period for VOC analysis to confirm the accuracy of the Biochlor model.

5.4 Schedule

The updated milestone schedule is presented on Figure 7.

Section 6

Engineer's Services this Period

This section presents a summary of the professional engineer's work on this project since the last submittal to the EPD. Table 6 summarizes the hours charged and the services BC's professional engineer for this project provided since the submittal of the last Semiannual Progress Report on January 30, 2013.

Section 7

Limitations

This document was prepared solely for Brunswick Corporation, Albany Sport, Co., and Albany Partners, LLC (the Group) in accordance with professional standards at the time the services were performed and in accordance with the contracts between the Group and Brown and Caldwell dated January 7, 2013 and March 25, 2013. This document is governed by the specific scope of work authorized by the Group; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by the Group and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

This document sets forth the results of certain services performed by Brown and Caldwell with respect to the property or facilities described therein (the Property). The Group recognizes and acknowledges that these services were designed and performed within various limitations, including budget and time constraints. These services were not designed or intended to determine the existence and nature of all possible environmental risks (which term shall include the presence or suspected or potential presence of any hazardous waste or hazardous substance, as defined under any applicable law or regulation, or any other actual or potential environmental problems or liabilities) affecting the Property. The nature of environmental risks is such that no amount of additional inspection and testing could determine as a matter of certainty that all environmental risks affecting the Property had been identified. Accordingly, THIS DOCUMENT DOES NOT PURPORT TO DESCRIBE ALL ENVIRONMENTAL RISKS AFFECTING THE PROPERTY, NOR WILL ANY ADDITIONAL TESTING OR INSPECTION RECOMMENDED OR OTHERWISE REFERRED TO IN THIS DOCUMENT NECESSARILY IDENTIFY ALL ENVIRONMENTAL RISKS AFFECTING THE PROPERTY.

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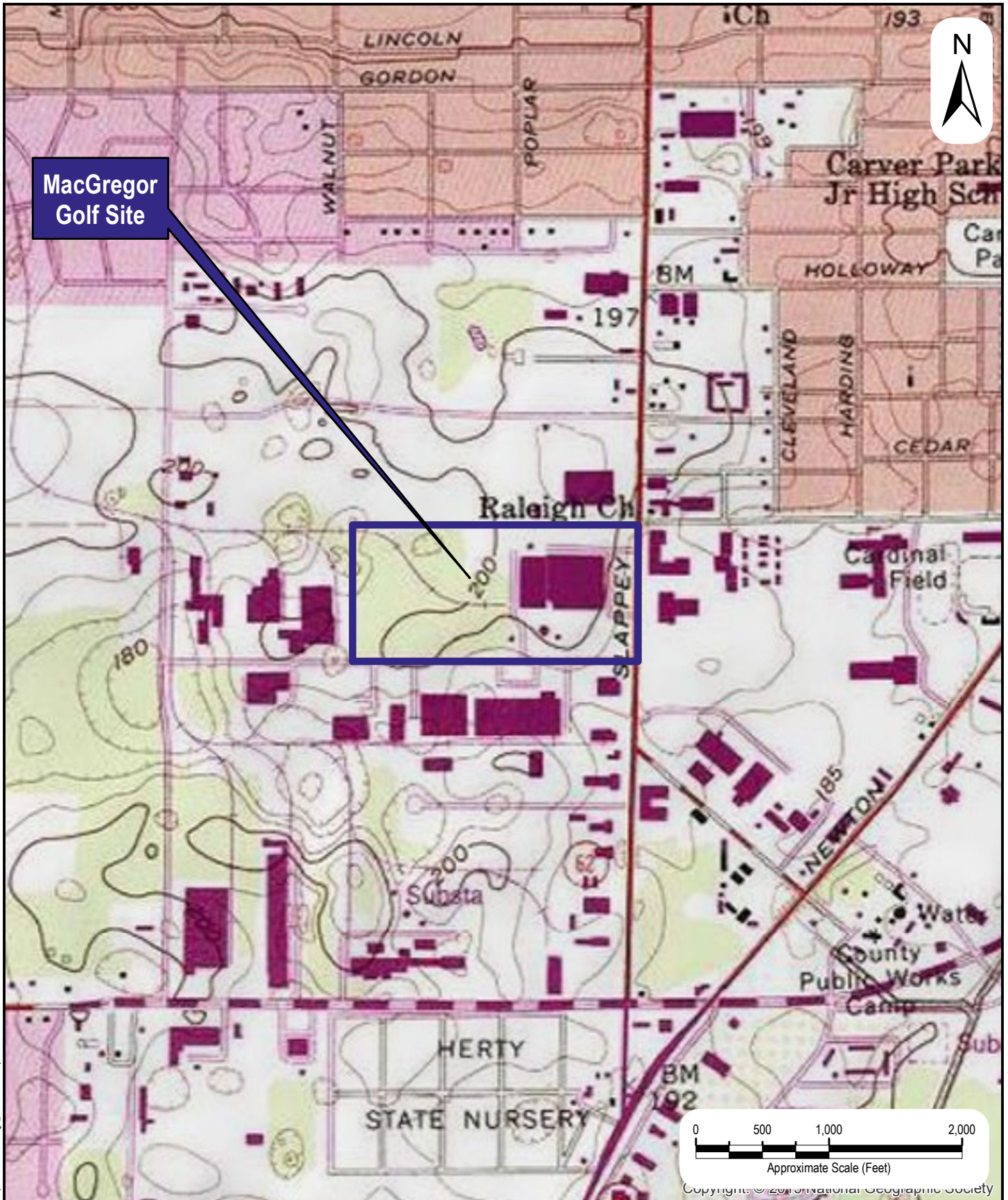


Figure 1

Site Location Map

Former MacGregor Golf Company
1601 S Slappey Blvd, Albany, Dougherty County, Georgia

**Brown AND
Caldwell**

PREPARED FOR:

Brunswick Corp.,
Albany Sport Co., &
Albany Partners, LLC

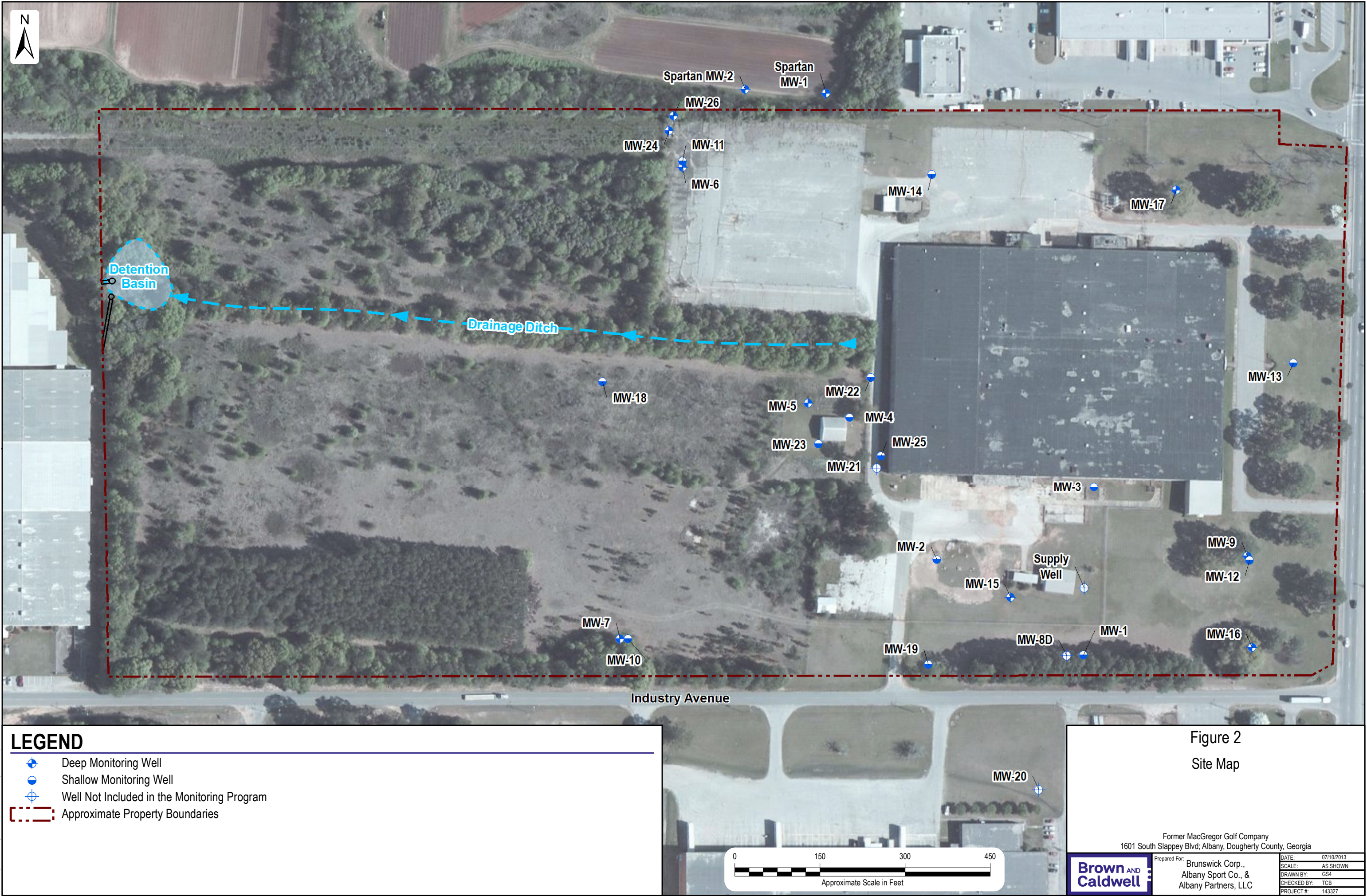
DATE: 01/11/2013

SCALE: AS SHOWN

DRAWN BY: JBM

CHECKED BY: TCB, PCR

PROJECT #: 143327



LEGEND

- Deep Monitoring Well
- Shallow Monitoring Well
- Well Not Included in the Monitoring Program
- Approximate Property Boundaries

Figure 2
Site Map

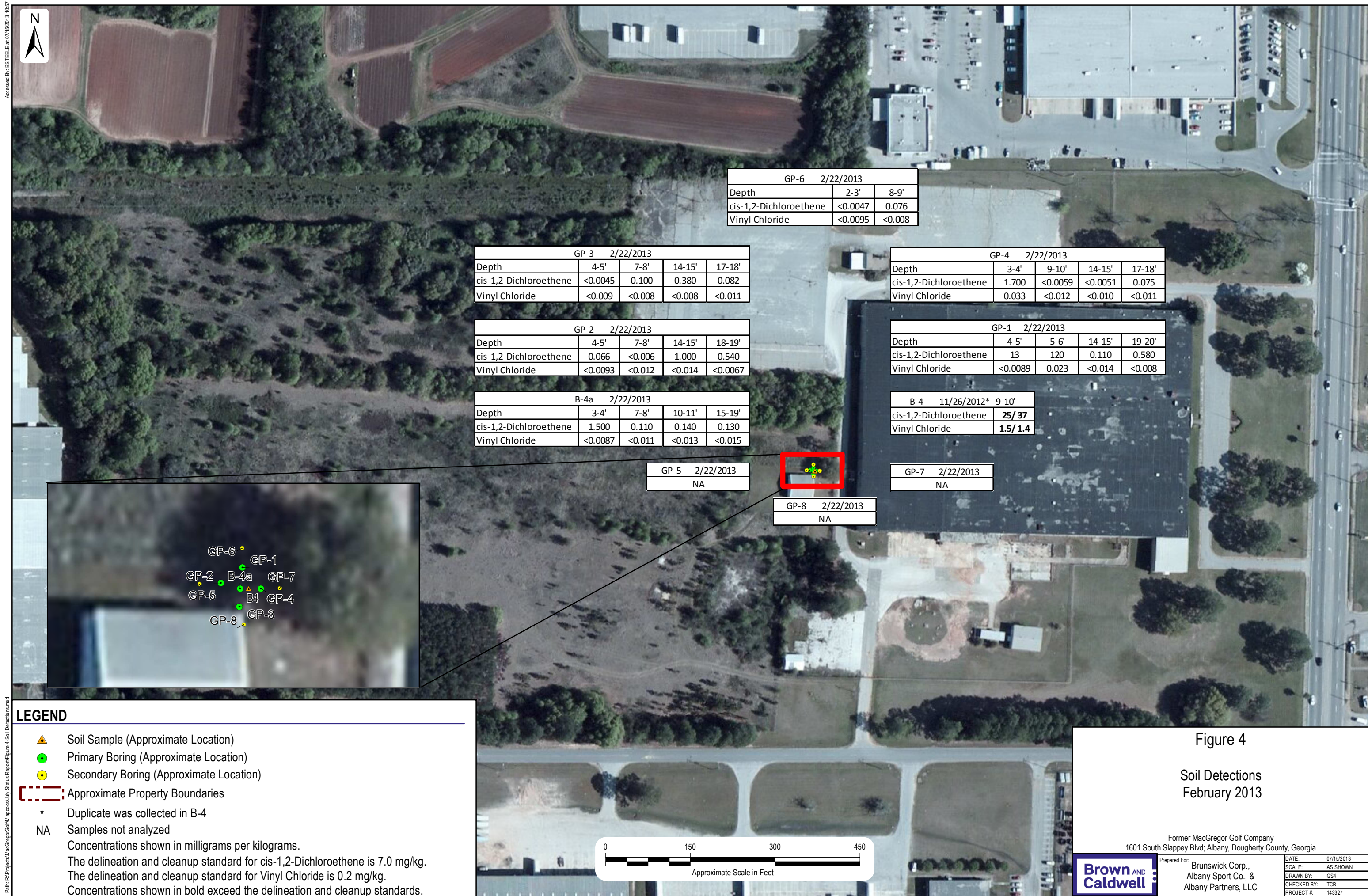
Former MacGregor Golf Company
1601 South Slappey Blvd; Albany, Dougherty County, Georgia

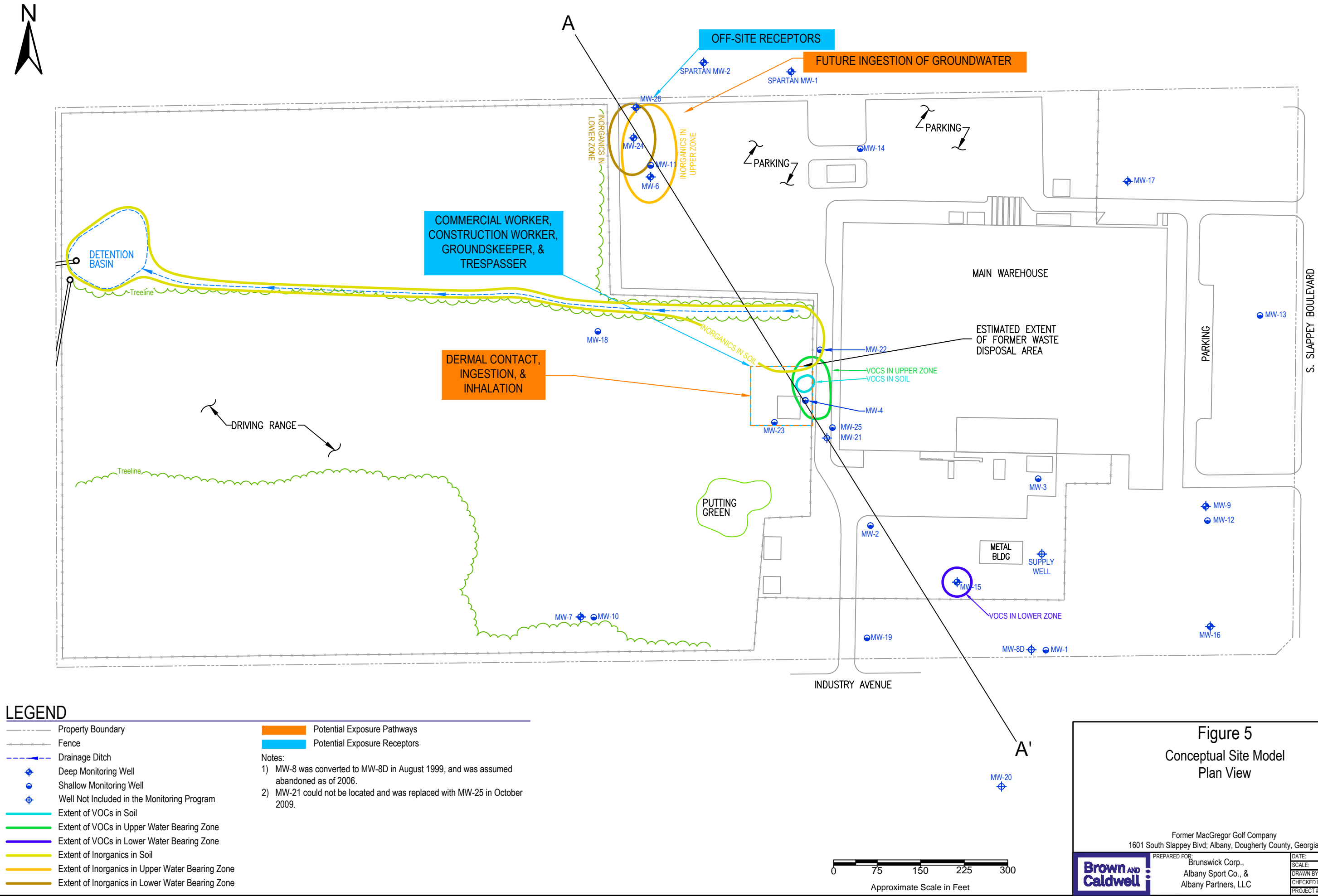
Brown AND Caldwell

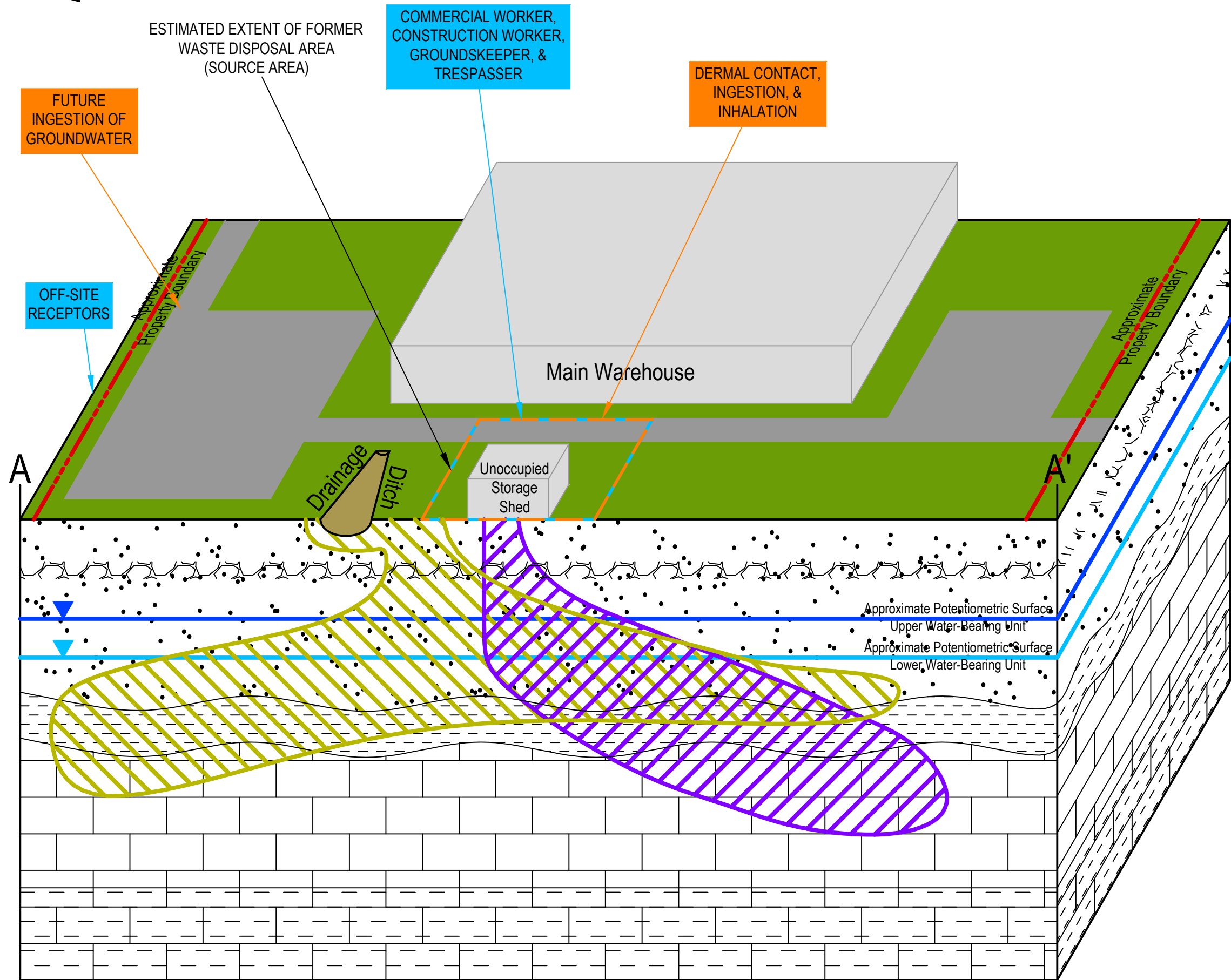
Prepared For: Brunswick Corp.,
Albany Sport Co., &
Albany Partners, LLC

DATE:	07/10/2013
SCALE:	AS SHOWN
DRAWN BY:	GS4
CHECKED BY:	TCB
PROJECT #:	143327









LEGEND

- Property Boundary
- Approximate Water Table in Upper Water-Bearing Zone
- Approximate Water Table in Lower Water-Bearing Zone
- Potential Exposure Pathways
- Potential Exposure Receptors
- Soil
- Chert
- Semiconfining Unit / Chalky Limestone
- Limestone Bedrock
- Lower Confining Unit / Limestone
- VOC impacts
- Inorganics impacts

Drawing not to scale

Figure 6
Conceptual Site Model
Profile View

Former MacGregor Golf Company
1601 South Slappey Blvd; Albany, Dougherty County, Georgia

Brown and Caldwell

PREPARED FOR:
Brunswick Corp.,
Albany Sport Co., &
Albany Partners, LLC

DATE: 07/15/2013
SCALE: NOT TO SCALE
DRAWN BY: GS4
CHECKED BY: TCB
PROJECT #: 143327

Figure 7. Updated Milestone Schedule
Former MacGregor Golf Company
Albany, Georgia

ID	Task Name	Projected Completion Date	Completion Date	Year 1				Year 2				Year 3				Year 4				Year 5			
				2012		2013		2014				2015				2016				2017			
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Enrollment in VRP	--	July 30, 2012																				
2	Submittal of Preliminary Cost Estimate for Implementation of Remediation & Continuing Actions, and Financial Assurance Demonstration	Within 60 days of Enrollment ^a	March 13, 2013																				
3	Monthly Groundwater Level Measurements	Within 3 Months of Enrollment	November 6, 2012																				
4	Horizontal Delineation of Site COCs (on accessible property)	Within 12 Months of Enrollment	November 29, 2012																				
5	Submittal of Semiannual Status Report with Updated CSM	Within 6 Months of Enrollment	January 30, 2013																				
6	Horizontal Delineation of Site COCs (on property previously inaccessible)	Within 12 Months of Enrollment	May 31, 2013																				
7	Submittal of Semiannual Status Report with Updated CSM	Within 12 Months of Enrollment	July 30, 2013																				
8	Vertical Delineation of Site COCs	Within 18 Months of Enrollment																					
9	Submittal of Semiannual Status Report with Updated CSM	Within 18 Months of Enrollment																					
10	Submittal of Semiannual Status Report with Final Remediation Plan and Updated CSM	Within 24 Months of Enrollment																					
12	Active remediation, if necessary	Within 30 Months of Enrollment																					
13	Submittal of Semiannual Status Report with Updated CSM	Within 30 Months of Enrollment																					
15	Submittal of the Compliance Status Report under the VRP with Certifications	Within 36 Months of Enrollment																					

Indicates due date indicated on VRP Application Form.

^a - Due date for this task was extended per EPD's approval.

Indicates task accomplished.

On-site Horizontal Delineation

Off-site Horizontal Delineation

Vertical Delineation, Final Remediation Plan, & Prelim. Cost Estimate

CSR Submittal to VRP with Certifications

Table 1. Well Construction Data and May 6, 2013 Groundwater Elevations
Former MacGregor Golf Company
Albany, Georgia

Well ID	Well Completion Date	Water Bearing Unit	Northing (Feet - Georgia West State Plane NAD83)	Easting (Feet - Georgia West State Plane NAD83)	Total Depth ^a (ft)	Screened Interval ^a (ft)	Open Hole Interval ^a (ft)	Top of Casing Elevation ^b (ft)	February 20/21, 2013		May 6, 2013	
									Static Depth to Water ^a (ft)	Groundwater Elevation ^b (ft)	Static Depth to Water ^a (ft)	Groundwater Elevation ^b (ft)
Upper Water Bearing Zone												
MW-1	6/28/1995	Upper	566051.98	2293023.36	45.88	33.5-48.5	NA	196.54	NM	NM	35.24	161.30
MW-2	6/28/1995	Upper	566220.01	2292765.44	40.19	25-40	NA	196.61	NM	NM	35.62	160.99
MW-3	6/29/1995	Upper	566348.21	2293042.11	46.33	32.50-47.50	NA	198.41	40.18	158.23	37.04	161.37
MW-4	6/29/1995	Upper	566470.82	2292611.54	46.96	28-41.50	NA	198.43	NM	NM	36.48	161.95
MW-10	7/15/1998	Upper	566080.73	2292221.58	48.37	33.30-48.30	NA	193.75	NM	NM	35.30	158.45
MW-11	7/15/1998	Upper	566921.91	2292317.31	48.30	33-48	NA	200.25	37.63	162.62	37.27	162.98
MW-12	7/16/1998	Upper	566218.48	2293315.55	45.28	35-50	NA	194.70	NM	NM	32.07	162.63
MW-13	10/22/1998	Upper	566566.74	2293392.86	50.38	35-50	NA	196.48	39.05	157.43	34.95	161.53
MW-14	10/20/1998	Upper	566899.03	2292756.18	49.71	34.80-49.80	NA	196.99	NM	NM	34.93	162.06
MW-18	6/17/1999	Upper	566533.98	2292176.82	43.70	28.8-43.8	NA	196.49	NM	NM	33.98	162.51
MW-19	6/17/1999	Upper	566035.83	2292750.34	44.12	29-44	NA	193.40	NM	NM	32.37	161.03
MW-21 ^{c,d}	3/11/2003	Upper	NM	NM	38.61	28.61-38.61	NA	196.80	NM	NM	NM	NM
MW-22	3/11/2003	Upper	566540.86	2292649.02	45.69	35.4-45.4	NA	196.89	35.31	161.58	34.84	162.05
MW-23	3/11/2003	Upper	566423.91	2292556.49	48.10	37.95-47.95	NA	199.73	NM	NM	38.23	161.50
MW-25 ^d	10/21/2009	Upper	566402.83	2292666.80	39.16	29-39	NA	195.82	35.29	160.53	34.62	161.20
Lower Water Bearing Zone												
MW-5	7/23/1998	Lower	566495.97	2292539.09	60.50	NA	60-73	199.89	NM	NM	42.65	157.24
MW-6	7/25/1998	Lower	566911.71	2292317.29	60.13	NA	60-73	200.14	NM	NM	43.10	157.04
MW-7	7/22/1998	Lower	566080.91	2292207.62	69.35	60-70	NA	194.22	NM	NM	36.73	157.49
MW-8/8D ^c	8/17/1999	Lower	NM	NM	207.50	197.3-207.3	NA	198.00	NM	NM	NM	NM
MW-9	7/20/1998	Lower	566227.03	2293312.05	69.28	NA	58.5-73.5	194.68	NM	NM	38.08	156.60
MW-15	10/23/1998	Lower	566153.85	2292894.90	75.38	65.70-75.70	NA	199.23	NM	NM	42.28	156.95
MW-16	10/21/1998	Lower	566065.57	2293320.44	75.47	64.70-74.70	NA	193.61	NM	NM	36.90	156.71
MW-17	6/17/1999	Lower	566871.51	2293186.97	73.81	66-76	NA	198.73	NM	NM	42.94	155.79
MW-20 ^c	8/14/1999	Lower	NM	NM	70.00	60-70	NA	193.31	NM	NM	NM	NM
MW-24	2/8/2008	Lower	566975.84	2292293.48	58.75	50-60	NA	200.39	NM	NM	43.18	157.21
MW-26	11/26/2012	Lower	567002.52	2292301.47	62.20	52.20-62.20	NA	200.90	41.40	159.50	43.35	157.55
Spartan MW-1	11/10/2008	Lower	NM	NM	68.5	52-67	NA	206.37	NM	NM	49.22	157.15
Spartan MW-2	11/10/2008	Lower	NM	NM	65.0	49.5-64.5	NA	205.78	47.43	158.35	48.30	157.48
Supply Well	1958	Lower	NM	NM	168.0	NA	NA	NM	NM	NM	NM	NM

^a Depth below top of casing.

^b Elevation is feet above mean sea level.

^c Wells not gauged or sampled as part of the monitoring program.

^d Well MW-25 replaced MW-21 in 2009.

NA - Not Applicable

NM - Not Measured

NAD83 - North American Datum of 1983

ft - feet

**Table 2. Recent Groundwater Detections of Site COCs
Former MacGregor Golf Company
Albany, Georgia**

Well ID	Sampling Date	Concentration (mg/L)		
		Total Chromium	Hexavalent Chromium	Trivalent Chromium
GW Delineation Standard		0.10	0.01	0.01
GW Cleanup Standard		0.10	0.01	153
MW-26	2/20/2013 ^a	0.0959	< 0.010	0.0959
	2/20/2013 Dup ^a	0.0979	< 0.010	0.0979
	5/9/2013	0.0337	0.0307	< 0.010
Spartan MW-2	2/21/2013 ^a	0.0101	< 0.050	0.0101
	5/8/2013	< 0.010	< 0.010	< 0.010
	5/8/2013 Dup	< 0.010	< 0.010	< 0.010

mg/L - milligrams per liter

^a Results indicate that chromium in these groundwater samples is in trivalent form, which is inconsistent with historical data. Regardless of the form in which chromium is present, the delineation standard of 0.01 mg/L is exceeded.

Purple Highlight - Indicates concentration is greater than delineation standard.

Table 3. Historical Groundwater Detections of Site COCs
Former MacGregor Golf Company
Albany, Georgia

Well ID	Sampling Date	Inorganics: Concentration (mg/L)					Organics: Concentration (mg/L)						
		Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)
GW Delineation Standard		0.10	0.01	0.01	0.20	0.10	0.007	0.07	0.005	0.002	0.005	0.7	10
GW Cleanup Standard		0.10	0.01	153	2.04	2.04	0.58	0.204	0.038	0.0033	0.0088	0.70	10
MW-1	6/30/95	0.05	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005
	6/10/98	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005
	7/31/98	<0.01	NA	NA	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/30/99	NA	NA	NA	NA	NA	0.0017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	8/6/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA
	3/12/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
MW-2	6/30/95	0.04	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005
	6/10/98	NA	NA	NA	NA	NA	<0.005	0.0059	<0.005	<0.002	<0.002	<0.002	<0.005
	7/31/98	<0.01	NA	NA	<0.02	<0.02	<0.002	0.004	<0.002	<0.002	<0.002	<0.002	<0.005
MW-3	6/30/95	0.05	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005
	6/10/98	NA	NA	NA	NA	NA	0.0094	<0.005	0.005	<0.002	<0.002	<0.002	<0.005
	7/31/98	<0.01	NA	NA	<0.02	0.03	0.007	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/30/99	NA	NA	NA	NA	NA	0.0058	0.0019	<0.001	<0.001	<0.001	<0.001	<0.002
	2/26/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	6/30/95	<0.01	NA	NA	NA	NA	<0.005	1.560	0.376	0.065	<0.002	<0.002	<0.005
	6/10/98	NA	NA	NA	NA	NA	<0.005	2.900	0.310	<0.002	<0.002	<0.002	<0.005
	7/29/98	0.33	NA	NA	<0.02	0.39	<0.002	2.800	0.350	0.013	<0.002	<0.002	<0.005
	6/30/99	NA	NA	NA	NA	NA	<0.025	3.700	0.460	<0.001	<0.025	<0.025	<0.050
	2/26/03	NA	NA	NA	NA	NA	<0.0002	2.200	0.290	0.017	<0.0002	<0.0003	<0.0015
MW-4	5/21/03	NA	NA	NA	NA	NA	<0.0002	1.300	0.200	0.0034	<0.0002	<0.0003	<0.0015
	6/13/03	NA	NA	NA	NA	NA	<0.0002	2.200	0.190	0.0022	<0.0002	<0.0003	<0.0015
	7/18/03	NA	NA	NA	NA	NA	<0.007	1.500	0.200	0.0068	<0.009	<2.300	<10.000
	8/14/03	NA	NA	NA	NA	NA	<0.00022	1.600	0.200	0.0020	<0.00019	<0.00032	<0.0015
	2/19/04	NA	NA	NA	NA	NA	<0.007	1.800	0.370	0.013	<0.009	<2.300	<10.000
	3/29/04	NA	NA	NA	NA	NA	<0.005	1.700	0.130	0.021	<0.005	<0.005	<0.015
	5/19/04	NA	NA	NA	NA	NA	<0.005	0.890	0.110	0.0087	<0.005	<0.005	<0.015
	8/23/04	NA	NA	NA	NA	NA	<0.005	1.400	0.180	0.0074	<0.005	<0.005	<0.015
	5/30/06	<0.01	NA	NA	NA	2.83	<0.005	1.100	0.170	0.0088	<0.005	<0.005	<0.015
	10/22/09	NA	NA	NA	NA	NA	0.00025	0.400	0.079	0.015	<0.00028	<0.00025	<0.00068
	7/28/10	NA	NA	NA	NA	NA	<0.005	0.690	0.200	0.025	<0.005	<0.005	<0.015
	3/31/11	NA	NA	NA	NA	NA	<0.005	0.410	0.110	0.0048	<0.005	<0.005	<0.015
	1/11/12	NA	NA	NA	NA	0.0725	NA	NA	NA	NA	NA	NA	NA
	11/28/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW-5	7/30/98	0.01	NA	NA	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
6/28/99		NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
8/9/99		NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA
9/3/99		NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA
3/13/03		NA	NA	NA	NA	NA	<0.0002	0.030	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
MW-6	5/30/06	NA	NA	NA	NA	<0.02	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
	7/30/98	0.01	NA	NA	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
MW-7	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	7/30/98	<0.01	NA	NA	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/29/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	3/13/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
MW-8	7/15/98	NA	NA	NA	NA	NA	0.007	<0.002	0.003	<0.002	<0.002	<0.002	<0.005
	7/31/98	<0.01	NA	NA	0.03	<0.02	0.008	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/8/99	NA	NA	NA	NA	NA	0.014	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/28/99	NA	NA	NA	NA	NA	0.016	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.002
MW-8D	6/17/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA

Table 3. Historical Groundwater Detections of Site COCs
Former MacGregor Golf Company
Albany, Georgia

Well ID	Sampling Date	Inorganics: Concentration (mg/L)					Organics: Concentration (mg/L)						
		Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)
GW Delineation Standard		0.10	0.01	0.01	0.20	0.10	0.007	0.07	0.005	0.002	0.005	0.7	10
GW Cleanup Standard		0.10	0.01	153	2.04	2.04	0.58	0.204	0.038	0.0033	0.0088	0.70	10
MW-9	7/29/98	<0.01	NA	NA	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	8/6/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA
	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	2/21/08	NA	NA	NA	NA	NA	<0.007	NA	NA	NA	NA	NA	NA
MW-10	7/29/98	0.01	NA	NA	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/29/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	3/13/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
MW-11	7/30/98	0.04	NA	NA	<0.02	<0.04	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	9/13/99	0.37 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	2/21/08	0.0404	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/21/09	0.025	0.030	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/29/10	0.193	0.0322	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/29/11	0.0285	0.0243	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-12	7/30/98	<0.01	NA	NA	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	7/28/10	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
	3/28/11	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
MW-13	10/26/98	NA	NA	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	0.014	0.770	4.5
	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	3/20/10	<0.01	<0.01	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
	7/28/10	<0.01	<0.01	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
	3/29/11	<0.01	<0.01	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
MW-14	10/27/98	NA	NA	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
MW-15	10/26/98	NA	NA	NA	NA	NA	0.057	<0.002	0.004	<0.002	<0.002	<0.002	<0.005
	6/30/99	NA	NA	NA	NA	NA	0.340	<0.002	0.032	<0.002	<0.002	<0.002	<0.004
	2/26/03	NA	NA	NA	NA	NA	0.066	<0.0004	0.008	<0.0001	<0.0002	<0.0003	<0.0015
MW-16	10/26/98	NA	NA	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/29/99	NA	NA	NA	NA	NA	<0.001	<0.001	0.0017	<0.001	<0.001	<0.001	<0.002
	8/6/99	NA	NA	NA	NA	NA	<0.001	0.0018	0.004	NA	NA	NA	NA
	9/3/99	NA	NA	NA	NA	NA	<0.001	0.0012	<0.001	NA	NA	NA	NA
	9/13/00	NA	NA	NA	<0.01	NA	<0.001	0.0015	0.0029	<0.001	<0.001	<0.001	<0.002
	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
MW-17	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	8/9/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA
	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
MW-18	6/26/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	8/9/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA
	9/13/99	<0.01	NA	NA	NA	<0.04	NA	NA	NA	NA	NA	NA	NA
MW-19	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	8/9/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA
	2/26/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	7/28/10	0.0117	0.0139	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
	3/29/11	<0.01	<0.01	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015

Table 3. Historical Groundwater Detections of Site COCs
Former MacGregor Golf Company
Albany, Georgia

Well ID	Sampling Date	Inorganics: Concentration (mg/L)					Organics: Concentration (mg/L)						
		Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)
GW Delineation Standard		0.10	0.01	0.01	0.20	0.10	0.007	0.07	0.005	0.002	0.005	0.7	10
GW Cleanup Standard		0.10	0.01	153	2.04	2.04	0.58	0.204	0.038	0.0033	0.0088	0.70	10
MW-20	8/17/99	NA	NA	NA	NA	NA	0.0047	<0.001	0.0016	NA	NA	NA	NA
	9/3/99	NA	NA	NA	NA	NA	0.0073	<0.001	<0.001	NA	NA	NA	NA
	9/13/00	NA	NA	NA	<0.01	NA	0.0085	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
MW-21	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	3/13/03	NA	NA	NA	NA	NA	<0.0002	0.030	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
MW-22	3/13/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	0.007	<0.0001	<0.0002	<0.0003	<0.0015
	5/30/06	NA	NA	NA	NA	<0.02	<0.005	0.0084	0.0090	<0.002	<0.005	<0.005	<0.015
	10/22/09	NA	NA	NA	NA	NA	<0.00024	0.0062	0.0053	<0.00029	<0.00028	<0.00025	<0.00068
	7/28/10	NA	NA	NA	NA	NA	<0.005	0.0095	0.0089	<0.002	<0.005	<0.005	<0.015
	3/31/11	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
	11/28/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/13/03	NA	NA	NA	NA	NA	<0.0002	0.030	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
MW-23	5/30/06	NA	NA	NA	NA	<0.02	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
	2/8/08	0.33	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	NA	NA
	10/22/09	NA	NA	NA	NA	NA	<0.00024	0.0012	0.00059J	<0.00029	<0.00028	<0.00025	<0.00068
	7/28/10	NA	NA	NA	NA	NA	<0.005	0.0089	<0.005	<0.002	<0.005	<0.005	<0.015
	3/29/11	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	10/2/12	<0.01	<0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-24	4/9/08	0.386	NA	NA	NA	<0.0200	NA	NA	NA	NA	NA	NA	NA
	10/21/09	0.11	0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/29/10	0.108	0.107	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/29/10 Dup	0.109	0.110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/30/11	0.120	0.0945	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/11/12	0.153 ^b	0.125 ^b	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/2/12	0.138 ^c	0.105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/2/12 Dup	0.139	0.116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-25	10/22/09	NA	NA	NA	NA	NA	<0.00024	0.004	0.0018	<0.00029	<0.00028	<0.00025	<0.00068
	7/28/10	NA	NA	NA	NA	NA	<0.005	0.011	0.0055	<0.002	<0.005	<0.005	<0.015
	3/29/11	NA	NA	NA	NA	NA	<0.005	0.0083	<0.005	<0.002	<0.005	<0.005	<0.015
MW-26	11/29/12	0.175	0.184	<0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/29/12 Dup	0.175	0.180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/20/2013	0.0959	<0.010	0.0959	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/20/2013 Dup	0.0979	<0.010	0.0979	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/9/2013	0.0337	0.031	<0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
Spartan MW-2	2/21/2013	0.0101	<0.050	0.0101	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/8/2013	<0.010	<0.010	<0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/8/2013 Dup	<0.010	<0.010	<0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
Supply Well	9/22/98	NA	NA	NA	NA	NA	0.003	<0.002	0.003	<0.002	<0.002	<0.002	<0.005
	6/15/99	NA	NA	NA	NA	NA	0.0011	<0.001	0.0026	<0.001	<0.001	<0.001	<0.002
	3/12/03	NA	NA	NA	NA	NA	0.006	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
DB-SW-1 (Surface Water)	10/20/09	0.0027J	NA	NA	NA	<0.0022	NA	NA	NA	NA	NA	NA	NA

NA - Sample not analyzed for this parameter.

J - Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an estimated value

Dup - Duplicate sample

mg/L - milligrams per liter

^a MW-11 sample was highly turbid at time of sample collection; data not representative of groundwater conditions.

^b MW-24 samples from 1/11/12 were highly turbid at time of sample collection. Concentrations of dissolved chromium and dissolved hexavalent chromium were 0.122 mg/L and 0.115 mg/L.

^c MW-24 samples from 10/2/12 were highly turbid at time of sample collection. Concentration of dissolved chromium in the parent and duplicate samples was 0.134 mg/L.

Purple Highlight - Indicates concentration is greater than delineation criteria

Orange Highlight - Indicates concentration is greater than delineation and cleanup standard

**Table 4. Recent Soil Detections of Site COCs
Former MacGregor Golf Company
Albany, Georgia**

Location	Sample Depth (feet)	Sampling Date	Organics: Concentration (mg/kg)	
			cis-1,2- Dichloroethene	Vinyl Chloride
Soil Delineation Standard			7.0	0.2
Soil Cleanup Standard			7.0	0.2
B-4	9-10	11/26/12	25	1.5
	9-10	11/26/2012 Dup	37	1.4
B-4a	3-4	2/22/13	1.500	< 0.0087
	7-8	2/22/13	0.110	< 0.011
	10-11	2/22/13	0.140	< 0.013
	15-19	2/22/13	0.130	< 0.015
GP-1	4-5	2/22/13	13	< 0.0089
	5-6	2/22/13	120	0.023
	14-15	2/22/13	0.110	< 0.014
	19-20	2/22/13	0.580	< 0.008
GP-2	4-5	2/22/13	0.066	< 0.0093
	7-8	2/22/13	< 0.006	< 0.012
	14-15	2/22/13	1.000	< 0.014
	18-19	2/22/13	0.540	< 0.0067
GP-3	4-5	2/22/13	< 0.0045	< 0.009
	7-8	2/22/13	0.100	< 0.008
	14-15	2/22/13	0.380	< 0.008
	17-18	2/22/13	0.082	< 0.011
GP-4	3-4	2/22/13	1.700	0.033
	9-10	2/22/13	< 0.0059	< 0.012
	14-15	2/22/13	< 0.0051	< 0.010
	17-18	2/22/13	0.075	< 0.011
GP-6	2-3	2/22/13	< 0.0047	< 0.0095
	8-9	2/22/13	0.076	< 0.008

mg/kg - milligrams per kilogram

Orange Highlight- Indicates concentration is greater than delineation and cleanup standard.

Table 5. Historical Soil Detections of Site COCs

Former MacGregor Golf Company

Albany, Georgia

Location	Sample Depth (feet)	Sampling Date	Inorganics: Concentration (mg/kg)					Organics: Concentration (mg/kg)						
			Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	dis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)
Soil Delineation Standard			100	2.0	2.5	20	50	0.7	7.0	0.5	0.2	0.5	70	1,000
Soil Cleanup Standard			1,200	3.84	3,066,000	412.9	2,665	4.18	7.0	0.5	0.2	0.5	70	1,000
SB-1	0-2	7/27/98	12	NA	NA	< 0.2	2.9	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
	0-2 D	7/27/98	5.3	NA	NA	< 0.2	2.6	< 0.005	0.015	< 0.005	NA	NA	NA	< 0.005
	28-30	7/27/98	6.7	NA	NA	< 0.2	13	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
SB-2	0-2 ^a	7/25/98	7.6	NA	NA	0.2	4	< 0.005	< 0.005	< 0.005	NA	NA	NA	0.007
	0-2 ^b	7/25/98	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
	29-31 ^a	7/25/98	2.7	NA	NA	< 0.2	2.7	< 0.005	< 0.005	< 0.005	NA	NA	NA	0.005
	29-31 ^b	7/25/98	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
	34-36	7/25/98	9.4	NA	NA	0.4	14	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
SB-3	2-4 ^a	7/24/98	4.2	NA	NA	3.7	300	< 0.005	< 0.005	< 0.005	NA	NA	NA	0.019
	2-4 ^b	7/24/98	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
	8-10 ^a	7/24/98	3.8	NA	NA	< 0.2	620	< 0.005	< 0.005	< 0.005	NA	NA	NA	0.017
	8-10 ^b	7/24/98	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
	34-36 ^a	7/24/98	12	NA	NA	0.5	23	< 0.005	1 E	0.45 E	NA	NA	NA	0.019
SB-4	34-36 ^b	7/25/98	NA	NA	NA	NA	NA	< 0.005	0.1	0.04	NA	NA	NA	< 0.005
	0-2 ^a	7/25/98	530	NA	NA	0.2	52	< 0.005	< 0.005	< 0.005	NA	NA	NA	0.008
	0-2 ^b	7/25/98	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	NA	NA	NA	0.0024 E
	29-31 ^a	7/25/98	1.8	NA	NA	< 0.2	< 2	< 0.005	< 0.005	< 0.005	NA	NA	NA	0.01
	29-31 ^b	7/25/98	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
MW-5	34-36 ^a	7/24/98	8.6	NA	NA	0.3	5.2	< 0.005	< 0.005	< 0.005	NA	NA	NA	0.008
	34-36 ^b	7/24/98	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
	3-5 ^a	7/18/98	4	NA	NA	< 0.2	< 2	< 0.005	< 0.005	< 0.005	NA	NA	NA	0.02
	3-5 ^b	7/18/98	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
	8-10 ^a	7/18/98	6.1	NA	NA	< 0.2	< 2	< 0.005	< 0.005	< 0.005	NA	NA	NA	0.018
MW-6	8-10 ^b	7/18/98	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
	32-34 ^a	7/18/98	< 1	NA	NA	< 0.2	< 2	< 0.005	< 0.005	< 0.005	NA	NA	NA	0.012
	32-34 ^b	7/18/98	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
	13-15 ^a	7/21/98	13	NA	NA	< 0.2	< 1	< 0.005	< 0.005	< 0.005	NA	NA	NA	0.023
	13-15 ^b	7/21/98	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
SB-5	0-2	10/23/98	6.8	NA	NA	NA	< 2	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
	8-10	10/23/98	5.5	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA
	34-36	10/23/98	45	NA	NA	NA	28	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
SB-6	0-2	10/23/98	650	NA	NA	NA	61	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
	8-10	10/23/98	7.2	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA
	20-22	10/23/98	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
	34-36	10/23/98	30	NA	NA	NA	24	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.005
SB-7	0-2	6/24/99	9.9	NA	NA	< 1.1	< 4.3	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.01
	8-10	6/24/99	7.1	NA	NA	< 1.1	< 4.3	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.009
	18-20	6/24/99	2.6	NA	NA	< 1.1	< 4.4	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0096
SB-8	0-2	6/24/99	10	NA	NA	< 1.1	< 4.3	< 0.004	< 0.004	< 0.004	NA	NA	NA	< 0.0084
	8-10	6/24/99	6.3	NA	NA	< 1.1	< 4.3	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0092
	18-20	6/24/99	4.7	NA	NA	< 1.1	< 4.3	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0094
SB-9	0-2	6/24/99	14	NA	NA	< 1.1	< 4.4	< 0.004	< 0.004	< 0.004	NA	NA	NA	< 0.0087
	8-10	6/24/99	10	NA	NA	< 1.1	< 4.3	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0094
	18-20	6/24/99	2.6	NA	NA	< 1.1	< 4.3	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.009
SB-10	0-2	6/24/99	8.3	NA	NA	< 1.1	< 4.5	< 0.004	< 0.004	< 0.004	NA	NA	NA	< 0.0086
	8-10	6/24/99	7.8	NA	NA	< 1.1	< 4.4	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.009
	18-20	6/24/99	3.9	NA	NA	< 1.1	< 4.5	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0094
SB-11	0-2	6/24/99	8.1	NA	NA	< 1.1	4.9	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0093
	8-10	6/24/99	12	NA	NA	< 1.1	< 4.5	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0094
	18-20	6/24/99	8.4	NA	NA	< 1.1	< 4.5	< 0.004	< 0.004	< 0.004	NA	NA	NA	< 0.0089
SB-12	0-2	6/24/99	7.9	NA	NA	< 1.1	< 4.3	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.01
	8-10	6/24/99	6.9	NA	NA	< 1.1	< 4.6	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0094
	18-20	6/24/99	23	NA	NA	< 1.1	< 4.4	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0091
SB-13	0-2	6/24/99	17	NA	NA	< 1.1	6.3	< 0.004	< 0.004	< 0.004	NA	NA	NA	< 0.0089
	8-10	6/24/99	22	NA	NA	< 1.1	< 4.4	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.01
	18-20	6/24/99	5.2	NA	NA	< 1.1	< 4.4	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0096
SB-14	0-2	6/24/99	7.8	NA	NA	< 1.1	< 8.7	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.01
	8-10	6/24/99	9.9	NA	NA	< 1.1	< 4.3	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0093
	18-20	6/24/99	9	NA	NA	< 1.1	< 4.4	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0092

Table 5. Historical Soil Detections of Site COCs

Former MacGregor Golf Company

Albany, Georgia

Location	Sample Depth (feet)	Sampling Date	Inorganics: Concentration (mg/kg)					Organics: Concentration (mg/kg)						
			Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)
Soil Delineation Standard			100	2.0	2.5	20	50	0.7	7.0	0.5	0.2	0.5	70	1,000
Soil Cleanup Standard			1,200	3.84	3,066,000	412.9	2,665	4.18	7.0	0.5	0.2	0.5	70	1,000
SB-15	0-2	6/25/99	60	NA	NA	< 1.1	< 4.5	< 0.004	< 0.004	< 0.004	NA	NA	NA	< 0.0089
	8-10	6/25/99	280	NA	NA	< 1.3	39	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.01
	18-20	6/25/99	2	NA	NA	< 1.1	< 4.2	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0094
SB-16	0-2	6/25/99	390	NA	NA	< 1.2	68	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.011
	8-10	6/25/99	15	NA	NA	< 1.1	< 4.4	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.0092
	18-20	6/25/99	2.8	NA	NA	< 1.1	< 4.3	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.009
SB-17	0-2	8/5/99	74	NA	NA	NA	6.4	NA	NA	NA	NA	NA	NA	NA
	8-10	8/5/99	88	NA	NA	NA	82	NA	NA	NA	NA	NA	NA	NA
	18-20	8/5/99	8.9	NA	NA	NA	22	NA	NA	NA	NA	NA	NA	NA
SB-17A	18-20	9/3/99	8.7	NA	NA	NA	7.7	NA	NA	NA	NA	NA	NA	NA
	23-25	9/3/99	31	NA	NA	NA	61	NA	NA	NA	NA	NA	NA	NA
	28-30	11/26/12	NA	NA	NA	NA	48.3	NA	NA	NA	NA	NA	NA	NA
SB-18	0-2	8/5/99	730	NA	NA	NA	39	NA	NA	NA	NA	NA	NA	NA
	8-10	8/5/99	29	NA	NA	NA	6.7	NA	NA	NA	NA	NA	NA	NA
	18-20	8/5/99	4.9	NA	NA	NA	< 4.2	NA	NA	NA	NA	NA	NA	NA
SB-19	0-2	8/5/99	32	NA	NA	NA	8.6	NA	NA	NA	NA	NA	NA	NA
	8-10	8/5/99	9.3	NA	NA	NA	< 4.5	NA	NA	NA	NA	NA	NA	NA
	18-20	8/5/99	3.8	NA	NA	NA	< 4	NA	NA	NA	NA	NA	NA	NA
SB-20	0-2	8/5/99	7.2	NA	NA	NA	< 8.5	NA	NA	NA	NA	NA	NA	NA
	8-10	8/5/99	11	NA	NA	NA	< 4.5	NA	NA	NA	NA	NA	NA	NA
	18-20	8/5/99	9.8	NA	NA	NA	< 4.7	NA	NA	NA	NA	NA	NA	NA
SB-21	0-2	8/5/99	5.3	NA	NA	NA	< 3.9	NA	NA	NA	NA	NA	NA	NA
	8-10	8/5/99	22	NA	NA	NA	< 4.4	NA	NA	NA	NA	NA	NA	NA
	18-20	8/5/99	12	NA	NA	NA	< 4.7	NA	NA	NA	NA	NA	NA	NA
SB-22	0-2	8/5/99	13	NA	NA	NA	< 3.9	NA	NA	NA	NA	NA	NA	NA
	8-10	8/5/99	15	NA	NA	NA	< 4.1	NA	NA	NA	NA	NA	NA	NA
	18-20	8/5/99	6.6	NA	NA	NA	< 4.1	NA	NA	NA	NA	NA	NA	NA
SB-23	0-2	8/5/99	7.5	NA	NA	NA	< 4.3	NA	NA	NA	NA	NA	NA	NA
	8-10	8/5/99	7.8	NA	NA	NA	< 4.3	NA	NA	NA	NA	NA	NA	NA
	18-20	8/5/99	9.2	NA	NA	NA	< 4.5	NA	NA	NA	NA	NA	NA	NA
SB-24	0-2	9/13/00	28	NA	NA	NA	< 4.2	NA	NA	NA	NA	NA	NA	NA
SB-25	0-2	9/13/00	190	NA	NA	NA	22	NA	NA	NA	NA	NA	NA	NA
SB-26	0-2	9/13/00	170	NA	NA	NA	18	NA	NA	NA	NA	NA	NA	NA
MW-17	0-2	6/16/99	6.6	NA	NA	< 1.1	< 4.2	NA	NA	NA	NA	NA	NA	NA
	8-10	6/17/99	21	NA	NA	< 1.1	< 4.3	NA	NA	NA	NA	NA	NA	NA
	18-20	6/17/99	5.8	NA	NA	< 1.1	< 4.4	NA	NA	NA	NA	NA	NA	NA
MW-18	0-2	6/16/99	16	NA	NA	< 1.1	6.2	NA	NA	NA	NA	NA	NA	NA
	8-10	6/16/99	19	NA	NA	< 1.2	< 4.7	NA	NA	NA	NA	NA	NA	NA
	18-20	6/16/99	7.1	NA	NA	< 1.1	< 4.4	NA	NA	NA	NA	NA	NA	NA
MW-20	0-2	8/5/99	18	NA	NA	NA	5.4	NA	NA	NA	NA	NA	NA	NA
	8-10	8/5/99	16	NA	NA	NA	< 5.1	NA	NA	NA	NA	NA	NA	NA
	18-20	8/5/99	2.1	NA	NA	NA	< 4.2	NA	NA	NA	NA	NA	NA	NA
B-1	10-15	5/24/05	NA	NA	NA	NA	NA	< 0.0032	0.0062	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
	20-25	5/24/05	NA	NA	NA	NA	NA	< 0.0032	< 0.0036	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
	35-40	5/24/05	NA	NA	NA	NA	NA	< 0.0032	0.12	0.01	< 0.0071	0.0042	< 0.0036	< 0.0036
B-2	5-10	5/24/05	NA	NA	NA	NA	NA	< 0.0032	< 0.0036	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
	25-30	5/24/05	NA	NA	NA	NA	NA	< 0.0032	0.11	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
B-3	5-10	5/24/05	NA	NA	NA	NA	NA	< 0.0034	< 0.0034	< 0.0034	< 0.0069	< 0.0034	32	130
	15-20	5/24/05	NA	NA	NA	NA	NA	< 0.0032	0.018	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
B-4	5-10	5/24/05	NA	NA	NA	NA	NA	0.013	11	< 0.0036	1.5	0.0098	4.00	16.6
	9-10	11/26/12	NA	NA	NA	NA	NA	NA	25	NA	1.5	NA	NA	NA
	9-10	11/26/2012 Dup	NA	NA	NA	NA	NA	NA	37	NA	1.4	NA	NA	NA
	15-20	5/24/05	NA	NA	NA	NA	NA	0.025	0.32	0.0056	< 0.0071	< 0.0036	0.0061	0.028
	25-30	5/24/05	NA	NA	NA	NA	NA	0.025	2.1	0.014	< 0.0071	< 0.0036	0.67	3.21
	9-10	11/26/12	NA	NA	NA	NA	NA	NA	25	NA	1.5	NA	NA	NA
	9-10	11/26/2012 Dup	NA	NA	NA	NA	NA	NA	37	NA	1.4	NA	NA	NA
B-4a	3-4	2/22/13	NA	NA	NA	NA	NA	NA	1.500	NA	< 0.0087	NA	NA	NA
	7-8	2/22/13	NA	NA	NA	NA	NA	NA	0.110	NA	< 0.011	NA	NA	NA
	10-11	2/22/13	NA	NA	NA	NA	NA	NA	0.140	NA	< 0.013	NA	NA	NA
	15-19	2/22/13	NA	NA	NA	NA	NA	NA	0.130	NA	< 0.015	NA	NA	NA

Table 5. Historical Soil Detections of Site COCs

Former MacGregor Golf Company

Albany, Georgia

Location	Sample Depth (feet)	Sampling Date	Inorganics: Concentration (mg/kg)					Organics: Concentration (mg/kg)						
			Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	dis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)
Soil Delineation Standard			100	2.0	2.5	20	50	0.7	7.0	0.5	0.2	0.5	70	1,000
Soil Cleanup Standard			1,200	3.84	3,066,000	412.9	2,665	4.18	7.0	0.5	0.2	0.5	70	1,000
B-5	15-20	5/25/05	NA	NA	NA	NA	NA	< 0.0032	< 0.0036	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
	25-30	5/25/05	NA	NA	NA	NA	NA	< 0.0032	< 0.0036	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
B-6	5-10	5/25/05	NA	NA	NA	NA	NA	< 0.0032	< 0.0036	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
	25-30	5/25/05	NA	NA	NA	NA	NA	< 0.0032	< 0.0036	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
B-7	5-10	5/25/05	NA	NA	NA	NA	NA	< 0.0032	< 0.0036	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
	15-20	5/25/05	NA	NA	NA	NA	NA	< 0.0032	< 0.0036	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
B-8	0-5	5/25/05	NA	NA	NA	NA	NA	< 0.0032	< 0.0036	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
	15-20	5/25/05	NA	NA	NA	NA	NA	< 0.0032	< 0.0036	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
B-10	5-10	5/25/05	NA	NA	NA	NA	NA	< 0.0032	< 0.0036	< 0.0036	< 0.0071	< 0.0036	< 0.0036	< 0.0036
SB-27	0-2	2/20/08	58.60	NA	NA	NA	13.10	NA	NA	NA	NA	NA	NA	NA
	2-4	2/20/08	52.90	NA	NA	NA	11.50	NA	NA	NA	NA	NA	NA	NA
SB-28	0-2	2/20/08	89.60	NA	NA	NA	15.70	NA	NA	NA	NA	NA	NA	NA
	2-4	2/20/08	49.60	NA	NA	NA	18.20	NA	NA	NA	NA	NA	NA	NA
SB-29	0-2	2/20/08	133	NA	NA	NA	11.10	NA	NA	NA	NA	NA	NA	NA
	2-4	2/20/08	16.70	NA	NA	NA	< 4.34	NA	NA	NA	NA	NA	NA	NA
SB-30	0-2	2/20/08	5.47	NA	NA	NA	< 5.80	NA	NA	NA	NA	NA	NA	NA
SB-31	0-2	2/20/08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8-10	2/20/08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-31	23-25	2/20/08	< 2.20	NA	NA	NA	< 4.41	NA	NA	NA	NA	NA	NA	NA
	30-32	2/20/08	5.72	NA	NA	NA	< 5.30	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.019	< 0.0095	< 0.0095
SB-32	0-2	2/20/08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8-10	2/20/08	13.00	NA	NA	NA	< 5.32	NA	NA	NA	NA	NA	NA	NA
	23-25	2/20/08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-33	0-2	2/20/08	NA	NA	NA	< 1.08	NA	NA	NA	NA	NA	NA	NA	NA
	34-36	2/20/08	6.53	NA	NA	NA	< 4.5	NA	NA	NA	NA	NA	NA	NA
	40-42	2/20/08	8.70	NA	NA	NA	< 5.73	NA	NA	NA	NA	NA	NA	NA
SB-34	34-36	2/20/08	22.50	NA	NA	NA	7.31	NA	NA	NA	NA	NA	NA	NA
SB-35	0-2	2/20/08	9.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-36	0-2	4/8/08	8.56	NA	NA	NA	< 5.14	NA	NA	NA	NA	NA	NA	NA
SB-37	0-2	4/8/08	9.46	NA	NA	NA	< 4.41	NA	NA	NA	NA	NA	NA	NA
SB-38	0-2	4/8/08	6.39	NA	NA	NA	< 5.06	NA	NA	NA	NA	NA	NA	NA
	0-2	4/8/08 Dup	3.4	NA	NA	NA	< 5.06	NA	NA	NA	NA	NA	NA	NA
SB-39	34-36	4/8/08	12	NA	NA	NA	< 4.60	NA	NA	NA	NA	NA	NA	NA
DB-S1	0-1	10/20/09	5.9	< 0.37	5.9	NA	1.3	NA	NA	NA	NA	NA	NA	NA
DB-S2	0-1	10/20/09	45.0	< 0.75	45.0	NA	8.0	NA	NA	NA	NA	NA	NA	NA
	0-1 D	10/20/09	40.0	< 0.60	40.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
SED-1	0-3"	2000	3300 ^c	NA	NA	NA	210	NA	NA	NA	NA	NA	NA	NA
SED-2	0-3"	2000	500 ^c	NA	NA	NA	240	NA	NA	NA	NA	NA	NA	NA
	0-3"	2000 Dup	490 ^c	NA	NA	NA	270	NA	NA	NA	NA	NA	NA	NA
SED-3	0-1	10/20/09	1,400 ^d	< 0.36	1,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
SED-4	0-1	10/20/09	2,900 ^d	< 0.42	2,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
SED-5	0-1	10/20/09	2,400 ^d	< 0.36	2,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
SED-6	0-1	10/20/09	880	< 0.35	880	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-1	4-5	2/22/13	NA	NA	NA	NA	NA	NA	13	NA	< 0.0089	NA	NA	NA
	5-6	2/22/13	NA	NA	NA	NA	NA	NA	120	NA	0.023	NA	NA	NA
	14-15	2/22/13	NA	NA	NA	NA	NA	NA	0.110	NA	< 0.014	NA	NA	NA
	19-20	2/22/13	NA	NA	NA	NA	NA	NA	0.580	NA	< 0.008	NA	NA	NA
GP-2	4-5	2/22/13	NA	NA	NA	NA	NA	NA	0.066	NA	< 0.0093	NA	NA	NA
	7-8	2/22/13	NA	NA	NA	NA	NA	NA	< 0.006	NA	< 0.012	NA	NA	NA
	14-15	2/22/13	NA	NA	NA	NA	NA	NA	1.000	NA	< 0.014	NA	NA	NA
	18-19	2/22/13	NA	NA	NA	NA	NA	NA	0.540	NA	< 0.0067	NA	NA	NA
GP-3	4-5	2/22/13	NA	NA	NA	NA	NA	NA	< 0.0045	NA	< 0.009	NA	NA	NA
	7-8	2/22/13	NA	NA	NA	NA	NA	NA	0.100	NA	< 0.008	NA	NA	NA
	14-15	2/22/13	NA	NA	NA	NA	NA	NA	0.380	NA	< 0.008	NA	NA	NA
	17-18	2/22/13	NA	NA	NA	NA	NA	NA	0.082	NA	< 0.011	NA	NA	NA
GP-4	3-4	2/22/13	NA	NA	NA	NA	NA	NA	1.700	NA	0.033	NA	NA	NA
	9-10	2/22/13	NA	NA	NA	NA	NA	NA	< 0.0059	NA	< 0.012	NA	NA	NA
	14-15	2/22/13	NA	NA	NA	NA	NA	NA	< 0.0051	NA	< 0.010	NA	NA	NA
	17-18	2/22/13	NA	NA	NA	NA	NA	NA	0.075	NA	< 0.011	NA	NA	NA

Table 5. Historical Soil Detections of Site COCs
Former MacGregor Golf Company
Albany, Georgia

Location	Sample Depth (feet)	Sampling Date	Inorganics: Concentration (mg/kg)					Organics: Concentration (mg/kg)						
			Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)
Soil Delineation Standard			100	2.0	2.5	20	50	0.7	7.0	0.5	0.2	0.5	70	1,000
Soil Cleanup Standard			1,200	3.84	3,066,000	412.9	2,665	4.18	7.0	0.5	0.2	0.5	70	1,000
GP-6	2-3	2/22/13	NA	NA	NA	NA	NA	NA	< 0.0047	NA	< 0.0095	NA	NA	NA
	8-9	2/22/13	NA	NA	NA	NA	NA	NA	0.076	NA	< 0.008	NA	NA	NA

NA - Sample not analyzed for this parameter.

Dup - Duplicate sample

mg/kg - milligrams per kilogram

E - Estimated (value above quantitation range)

J - Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an estimated value.

^a Soil from lab-contaminated Encore samplers run for 8260 VOCs.

^b Soil from soil jars run for 8260 VOCs.

^c The area immediately surrounding SED-1 and SED-2 was resampled in 2009. Based on the speciation of samples SED-3 through SED-6, the chromium in SED-1 and SED-2 was assumed to be in trivalent form.

^d Based on the speciation of samples SED-3 through SED-6, the chromium is in trivalent form.

Purple Highlight - Indicates concentration is greater than delineation criteria.

Orange Highlight - Indicates concentration is greater than delineation and cleanup standard.

Table 6. Summary of Hours Invoiced by Professional Engineer This Period
Former MacGregor Golf Company
Albany, Georgia

Certified PE	Month	Hours Invoiced	Description of Services
Trish Reifenberger, P.E. Georgia PE No. 20676	February 2013	0.00	
	March 2013	4.00	* Oversight during delineation of Site COCs. * Monitored regulatory and financial status of project.
	April 2013	0.75	* Monitored regulatory and financial status of project.
	May 2013	1.50	* Oversight during delineation of Site COCs. * Monitored regulatory and financial status of project.
	June 2013	0.25	* Monitored regulatory and financial status of project.
	July 2013	5.75	* Review of July 2013 Semiannual Progress Report
Total Hours Invoiced this Period		12.25	

Appendix A: Field Data Sheets



B-4

2-22-13

PROJECT NAME: MacGregor BORING NUMBER: B-4
 PROJECT NO.: _____ PAGE NUMBER: 1
 LOCATION: Albany, Ga DATE/TIME START: 0850
 Subcontractor: Atlas DATE/TIME FINISH: 0920
 Drilling Method: Direct push PREPARED BY: MM
 Sampling Method: VOC SURFACE ELEV.: _____
 Equipment Used: P10 SURFACE CONDS.: _____

Depth in Feet	Percent (%) Recovery	Sample Depth Interval	Soil Group Symbol	Blow Counts	PID/ FID ppm	FIELD DESCRIPTION AND COMMENT
		0-1			3.4	hard compacted clay, some sand black staining towards bottom sample 0855 3-11 feet
	70%	1-2			3.5	
		3-4			3.6	
5.0	80%	4-5			9.6	black sand, clay slightly saturated at 5 feet, plastic present within soil, 7-8 feet transition to red clay and sand, saturated, 905 sample 7-8
		5-6			11.5	
		7-8			17.6	
10.0	80	8-9			3.6	8-11 feet, sandy clay, red, sample 10-11 no plasticity 0915
		10-11			7.8	
		11-12			5.4	
		12-13			3.6	Same as above
	100	13-14			3.2	
		14-15			3.3	
15.0		15-16			4.0	Slight color at 15-16 sample 0920
		16-17			3.3	Sand, yellow color with koolin / chert?
	100	17-18			3.2	
		18-19			3.2	
		19-20			3.4	

GP-1

2-22-13

PROJECT NAME: MacGregor BORING NUMBER: 1
 PROJECT NO.: _____ PAGE NUMBER: _____
 LOCATION: ahead of B-4 DATE/TIME START: 0930
 Subcontractor: Atlas DATE/TIME FINISH: 1000
 Drilling Method: Direct push PREPARED BY: MM
 Sampling Method: Grab SURFACE ELEV.: _____
 Equipment Used: PIB SURFACE CONDS.: _____

Background = 3.0

Depth in Feet	Percent (%) Recovery	Sample Depth Interval	Soil Group Symbol	Blow Counts	PIB/ FID ppm	FIELD DESCRIPTION AND COMMENT
5.0	80%	0-1 1-2 2-3 3-4 4-5			3.6 3.5 3.8 4.1 4.3	Sand w/ some clay, reddish color, very brittle, blackens towards bottom, more clay rich 4-5 sample 0940
10.0	90%	5-6 6-7 7-8 8-9 9-10			19.6 7.1 4.5 4.7 5.1	Black sand, fine-grained, kaolin? Present, becomes more clay-sand mixture towards bottom Sample 5-6 0950
15.0	100%	10-11 11-12 12-13 13-14 14-15			7.8 8.0 8.8 8.3 9.2	fine-grained sand w/ some clay, natural staining, no order Sample 14-15 0955
	100%	15-16 16-17 17-18 18-19 19-20			4.1 2.6 3.3 4.1 4.5	Medium-grained sand, no staining 14-20 11-2 1000

2-22-13

GP-2

PROJECT NAME: Madroger BORING NUMBER: GP-2
 PROJECT NO.: _____ PAGE NUMBER: _____
 LOCATION: Albany DATE/TIME START: 1015
 Subcontractor: Atten DATE/TIME FINISH: 1030
 Drilling Method: Direct push PREPARED BY: MM
 Sampling Method: Grab SURFACE ELEV.: _____
 Equipment Used: Dip SURFACE CONDS.: _____

Depth in Feet	Percent (%) Recovery	Sample Depth Interval	Soil Group Symbol	Blow Counts	PID/ FID ppm	FIELD DESCRIPTION AND COMMENT
		0-1			1.3	Sandy-clay, appears to be slight black staining, brittle Sample 4-5 1025
		1-2			1.2	
	80	2-3			1.4	
		3-4			1.3	
		4-5			1.8	
5.0		5-6			3.2	Clay til ~6 ft, stained black Sand, 7-8, returns to clay-sand mixture after 8-9 ft range Sample 7-8 1030
		6-7			2.9	
	100%	7-8			15.1	
		8-9			7.8	
		9-10			9.6	
10.0		10-11			3.1	transition to sand with clay, no unnatural staining 14-15 sample 1040
		11-12			3.2	
	100%	12-13			3.3	
		13-14			3.9	
		14-15			4.5	
15.0		15-16			6.6	Sand, towards bottom has slight green hue 18-19 Sample 1050
	100%	16-17			7.9	
		17-18			5.3	
		18-19			9.8	
		19-20			2.1	

GP-3

SOIL BORING LOG

2-22-8

PROJECT NAME: MeridenBORING NUMBER: GP-3

PROJECT NO.:

PAGE NUMBER: 1LOCATION: AlbanyDATE/TIME START: 1055Subcontractor: AtlasDATE/TIME FINISH: 1130Drilling Method: Direct PushPREPARED BY: MASampling Method: GrabSURFACE ELEV.: Equipment Used: PMDSURFACE CONDS.:

Depth in Feet	Percent (%) Recovery	Sample Depth Interval	Soil Group Symbol	Blow Counts	PID/ FID ppm	FIELD DESCRIPTION AND COMMENT
		0-1			3.5	Clay w/ some sand, some plasticity, some organic matter 4-5 range, soil turns black 4-5 Sample 1110
	60	1-2			3.4	
		2-3			4.0	
		3-4			4.0	
		4-5				
5.0		5-6			5.3	Sand rich clay, black staining in 7-8 interval, transitions to more sand fins 1120
	80	6-7			6.4	
		7-8			7.1	
		8-9			7.7	
		9-10			7.3	
10.0		10-11			8.0	Sand w/ some clay, some kaolin 14-15 1125
	100	11-12			10.3	
		12-13			10.1	
		13-14			11.3	
		14-15			11.4	
15.0		15-16			11.3	Kaolin more present within, sand, slight clay, hard, non-plastic 17-18 1130
	100	16-17			12.3	
		17-18			15.1	
		18-19			14.6	
		19-20			14.6	

GP-4

PROJECT NAME: MacGregor
 PROJECT NO.: _____
 LOCATION: Albany
 Subcontractor: Atlas
 Drilling Method: Direct Push
 Sampling Method: Grab
 Equipment Used: PIP

BORING NUMBER: Gr-4
 PAGE NUMBER: 1
 DATE/TIME START: 1150
 DATE/TIME FINISH: 1220
 PREPARED BY: MJ
 SURFACE ELEV.: _____
 SURFACE CONDS.: _____

BGA ~~5.0~~ 8.5

Depth in Feet	Percent (%) Recovery	Sample Depth Interval	Soil Group Symbol	Blow Counts	PID/ FID ppm	FIELD DESCRIPTION AND COMMENT
		0-1			10.5	Organic Matter present, sand with some gravel, chunks of white kaolin? transition to red sand at ~4 ft 3-4 1200
		1-2			10.9	
		2-3			11.2	
		3-4			14.8	
		4-5			14.6	
5.0		5-6			12.8	Sand, no sign of staining, soft, some clay content. 9-10 1209
		6-7			13.9	
		7-8			14.7	
		8-9			16.3	
		9-10			16.6	
10.0		10-11			19.3	hard sand with some clay. medium grained w/ kaolin? 14-15 1215
		11-12			19.7	
		12-13			20.1	
		13-14			18.6	
		14-15			21.3	
15.0		15-16			18.3	Slight green hue to sand, presence of white kaolin 17-18 1222
		16-17			17.2	
		17-18			19.1	
		18-19			17.6	
		19-20			16.1	

GP-S

PROJECT NAME: MacGregor BORING NUMBER: GP-S
 PROJECT NO.: _____ PAGE NUMBER: 1
 LOCATION: Albany DATE/TIME START: 1334
 Subcontractor: Atlas DATE/TIME FINISH: 1900
 Drilling Method: Direct push PREPARED BY: MA
 Sampling Method: grab SURFACE ELEV.: _____
 Equipment Used: PIP SURFACE CONDS.: _____

PIP malfunctioning 121 BGA

Depth in Feet	Percent (%) Recovery	Sample Depth Interval	Soil Group Symbol	Blow Counts	PID/ FID ppm	FIELD DESCRIPTION AND COMMENT
5.0	90	0-1 1-2 2-3 3-4 4-5			18.4 18.3 18.5 19.0 21.0	Red clay and sand, brittle Sample 4-5 1330
10.0	80	5-6 6-7 7-8 8-9 9-10			16.3 15.7 54.3 12.3 20.1	Odor present 4-6 ft stained black sands at 7-8 transition to red clay and sand Sample 7-8 1340
15.0	40	10-11 11-12 12-13 13-14 14-15			16.8 18.7 16.8 15.8 17.1	Saturated clay and sand, staining around 10 ft Sample 12-13 1350
		15-16 16-17 17-18 18-19 19-20			14.9 15.6 14.1 13.8 18.6	Compacted medium-grained sand, green hue Sample 19-20 1350

PROJECT NAME: MacGregor

BORING NUMBER: GP-6

PROJECT NO.:

PAGE NUMBER: 1

LOCATION: Albany

DATE/TIME START: 1355

Subcontractor: Atlas

DATE/TIME FINISH: 1415

Drilling Method: Direct Push

PREPARED BY: M

Sampling Method: Grah

SURFACE ELEV.:

Equipment Used:

SURFACE CONDS.:

812 BGA

Depth in Feet	Percent (%) Recovery	Sample Depth Interval	Soil Group Symbol	Blow Counts	PID/ FID ppm	FIELD DESCRIPTION AND COMMENT
	100	0-1			9.8	Clay and sand, red natural staining, no plasticity to 3 1400 sample 2-3
		1-2			8.5	
		2-3			10.3	
		3-4			9.1	
5.0		4-5			8.6	
		5-6			6.7	Same as above sample 8-9 1405
		6-7			7.8	
		7-8			8.4	
		8-9			10.1	
10.0		9-10			8.6	
		10-11			10.2	Same as above 12 ft transition to sand w/ slight clay sample 14-15 1410
		11-12			9.5	
		12-13			10.5	
		13-14			10.6	
15.0		14-15			11.0	
		15-16			7.5	Same as above Around 18ft sand becomes more yellow, kaolin? 1920 1415
		16-17			7.8	
		17-18			7.5	
		18-19			8.9	
		19-20			8.9	

2-22-53

GP-7

PROJECT NAME: MacGregor

BORING NUMBER: GP-7

PROJECT NO.:

PAGE NUMBER: 1

LOCATION: Albany, Ga

DATE/TIME START: 1425

Subcontractor: Atlas

DATE/TIME FINISH: 1450

Drilling Method: Direct Push

PREPARED BY: MA

Sampling Method: Grab

SURFACE ELEV.:

Equipment Used: PID

SURFACE CONDS.:

Background air 7.0

Depth in Feet	Percent (%) Recovery	Sample Depth Interval	Soil Group Symbol	Blow Counts	PID/ FID ppm	FIELD DESCRIPTION AND COMMENT
5.0	80	0-1 1-2 2-3 3-4 4-5			8.3 8.3 7.2 2.1 8.3	Organic Matter, compact, hard, non-plastic clay and some sand Sample 3-4 1430
10.0	90	5-6 6-7 7-8 8-9 9-10			7.4 6.7 6.9 11.1 15.2	red sand, some clay generally same as above, only darker naturally colored 9-10 sampled 1435
15.0	90	10-11 11-12 12-13 13-14 14-15			8.4 9.9 8.0 9.0 4.8	Sand becomes light Clay becomes slight yellow. Sample 11-12 1445
	100	15-16 16-17 17-18 18-19 19-20			12.1 11.4 5.3 10.9 16.1	Cherty sand, hard, brittle Sample 17-18 1450

GP-8

PROJECT NAME: MacGregor

BORING NUMBER: GP-8

PROJECT NO.:

PAGE NUMBER: 1

LOCATION: Albany

DATE/TIME START: 1500

Subcontractor: Atlas

DATE/TIME FINISH: 1525

Drilling Method: Direct push

PREPARED BY: M

Sampling Method: grab

SURFACE ELEV.: —

Equipment Used: P10

SURFACE CONDS.: —

BGA 4.6

Depth in Feet	Percent (%) Recovery	Sample Depth Interval	Soil Group Symbol	Blow Counts	PID/ FID ppm	FIELD DESCRIPTION AND COMMENT
5.0	80	0-1 1-2 2-3 3-4 4-5			5.1 5.6 6.3 6.4 5.7	Clay and sand brittle but plaster slight staining and organic matter Sample 3-4 1505
10.0	90	5-6 6-7 7-8 8-9 9-10			5.7 5.9 7.2 7.9 9.0	Same as above, slight black staining, no odor Sample 9-10 1510
15.0	70	10-11 11-12 12-13 13-14 14-15			4.6 8.5 12.4 14.2 14.5	Same as above, around 12 ft, sand becomes more dominant and light yellow, medium-grained Sample 14-15 1520
	100	15-16 16-17 17-18 18-19 19-20			9.7 13.1 12.3 9.8 14.1	Same as above, no change Sample 19-20 at 1525

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-26

2-20-13

1. PROJECT INFORMATION

Project Number: MacGregor Task Number: _____Area of Concern: MW-26Client: MacGregorPersonnel: MAProject Location: AlbanyWeather: ~50 Sunny

2. WELL DATA

Date Measured: 2-20-13 Time: AM Temporary Well: ☐ Yes ☒ NoCasing Diameter: 2 inchesType: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____Screen Diameter: 2 inchesType: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____Total Depth of Well: 62.20 feetFrom: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____Depth to Static Water: 41.40 feetFrom: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: _____ feet

From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____Length of Water Column: 21.2 feetWell Volume: 3.46 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 2-20-13 Time: 1045 Equipment Model(s): _____Purge Method: ☐ Baller, Size: _____ ☐ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☒ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____Materials: Pump/Bailer ☒ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☒ Prepared Off-Site ☐ Field-Cleaned ☐ DisposableMaterials: Rope/Tubing ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ DisposableVolume to Purge (minimum): 3 well volumes or 10.37 gallonsWas well purged dry? ☐ Yes ☒ No Pumping Rate: .05 gal/minCalibrated? ☒ Yes ☐ No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1045	.00	6.81	18.78	.652	48.2	3.11	<1000	41.80	water is milky
1100	.20	6.43	19.13	.640	49.6	2.27	900	41.80	
1115	.25	6.70	19.64	.623	39.4	2.60	790	41.80	
1130	.30	6.70	19.79	.620	48.1	3.02	178	41.80	
1145	.35	6.69	19.82	.619	51.8	3.16	114	41.80	
1200	.40	6.66	19.61	.618	56.3	3.25	93	41.80	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

Method(s): ☐ Baller, Size: _____ ☐ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☒ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____Materials: Pump/Bailer ☒ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☒ Prepared Off-Site ☐ Field-Cleaned ☐ DisposableMaterials: Tubing/Rope ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ DisposableDepth to Water at Time of Sampling: _____ Field Filtered? ☐ Yes ☐ NoSample ID: 13051-MW-26 Sample Date: 2-20-13 Sample Time: 1130 # of Containers: 3Duplicate Sample Collected? ☐ Yes ☐ No ID: 13051-Dup # of Containers: 3Equipment Blank Collected? ☐ Yes ☒ No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

Pump @ 25-57 range, 2 cpm

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-26

2/20/13

3. PURGE DATA (continued from page 1)

[illegible]Purge data continued on next sheet? ☐

WELL ID: Spartan MW-2

2/21/13

1. PROJECT INFORMATION

Project Number: 143327 Task Number: _____ Area of Concern: Sparta
Client: MalGregor Personnel: MM
Project Location: Albany, GA Weather: ~50 Sunny

2. WELL DATA

Date Measured: 2-21-13 Time: Am Temporary Well: ☐ Yes ☒ No
Casing Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Screen Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Total Depth of Well: 65 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Static Water: 47.43 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Product: _____ feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Length of Water Column: 17.57 feet Well Volume: 2.86 gal Screened Interval (from GS): _____
Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 2-21 Time: 0930 Equipment Model(s): _____
Purge Method: ☒ Baller, Size: _____ ☐ Bladder Pump ☒ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☒ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable
Materials: Rope/Tubing ☐ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Volume to Purge (minimum): 83 well volumes or 8.59 gallons
Was well purged dry? ☐ Yes ☐ No Pumping Rate: _____ gal/min Calibrated? ☒ Yes ☐ No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0940	3	7.20	20.57	.561	158.1	7.60	<1000	47.43	Milky Water
0950	4.0	7.14	20.58	.542	168.9	7.34	<1000	51.10	
1005	6.0	7.13	20.40	.534	171.4	7.43	<1000	51.10	
1020	9.0	7.12	20.94	.525	171.5	7.12	934	51.10	
1035	12.0	7.11	20.97	.523	171	7.27	727	51.10	Switch to 20 minutes
1055	14.0	7.11	20.84	.518	169.4	7.70	752		Purge data continued on next sheet? <input checked="" type="checkbox"/>

4. SAMPLING DATA

Method(s): ☐ Baller, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Tubing/Rope ☐ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Depth to Water at Time of Sampling: 51.10 Field Filtered? ☐ Yes ☒ No
Sample ID: 13052-Spartan MW-2 Sample Date: 2-21-13 Sample Time: 1650 # of Containers: 3
Duplicate Sample Collected? ☐ Yes ☒ No ID: 13052-EB # of Containers: 3
Equipment Blank Collected? ☒ Yes ☐ No ID: _____ # of Containers: 3

Geochemical Analyses

Ferrous Iron: _____ mg/L
DO: _____ mg/L
Nitrate: _____ mg/L
Sulfate: _____ mg/L
Alkalinity: _____ mg/L

5. COMMENTS

well in good condition

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: Sparta MW-2

3. PURGE DATA (continued from page 2)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1115	16.0	7.11	21.05	.514	168.6	7.62	801	51.10	
1135	16.0	7.10	21.08	.513	167.7	7.35	735	51.10	
1155	17.0	7.10	21.07	.512	167.7	7.33	830	51.10	still milky water
1215									transition to bladder pump per T Berryman's suggestion
1230									YSI filling up
1250	17.1	7.06	19.78	.509	174.3	7.71	836	51.10	
1310	17.3	7.07	19.95	.518	168.1	7.60	728	51.10	
1330	17.5	7.06	19.92	.516	166.5	7.59	773	51.10	
1350	17.7	7.08	20.03	.515	164.9	7.54	638	51.10	1 CPM
1410	17.8	7.08	20.07	.514	164.5	7.56	598	51.10	
1430	17.9	7.08	20.08	.514	164.0	7.54	423	51.10	
1450	18	7.06	20.11	.514	163.9	7.50	386	51.10	
1510	18.1	7.08	20.10	.514	163.7	7.52	317	51.10	
1530	18.3	7.08	20.12	.514	164.1	7.54	402	51.10	
1550	18.5	7.07	20.12	.514	163.2	7.50	303	51.10	
1610	19.0	7.07	20.12	.514	163.4	7.49	214	51.10	
1630	19.4	7.07	20.12	.514	163.3	7.51	200	51.10	
1650	20.0	7.07	20.14	.514	163.7	7.48	176	51.10	
1650									
EB 1710									

1. ~~Force data continued on next sheet?~~ ☐

Signature

WELL ID: MW-26

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
Client: Alhany GA Personnel: BS
Project Location: Macgregor Weather: Sunny ~ 85°F

2. WELL DATA

Date Measured: 5-6-13 Time: AM Temporary Well: ☐ Yes ☒ No
Casing Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Screen Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Total Depth of Well: 62.20 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Static Water: 43.35 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Product: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Length of Water Column: 18.85 feet Well Volume: 3.14 gal Screened Interval (from GS): _____
Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 5-9-13 Time: 0805 Equipment Model(s)
Purge Method: ☐ Bailer, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Rope/Tubing ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Volume to Purge (minimum): 3 well volumes or 9.44 gallons
Was well purged dry? ☐ Yes ☐ No Pumping Rate: _____ gal/min Calibrated? ☒ Yes ☐ No

1. Sample Pro
2. GED NP-50
3. YSI-556
4. DRT-15CE

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0820	1.00	6.84	19.62	0.699	58.3	4.75	183	43.60'	
0835	2.00	6.85	19.67	0.702	58.2	4.35	177	43.60'	
0850	3.00	6.85	19.68	0.698	54.1	3.95	115	43.60'	
0905	4.00	6.85	19.85	0.695	51.2	3.79	40.8	43.60'	
0920	5.00	6.84	19.83	0.689	44.9	3.68	19.2	43.60'	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

Method(s): ☐ Bailer, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Tubing/Rope ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Depth to Water at Time of Sampling: _____ Field Filtered? ☐ Yes ☒ No
Sample ID: 13129-MW-26 Sample Date: 5-9-13 Sample Time: 1240 # of Containers: 3
Duplicate Sample Collected? ☐ Yes ☒ No ID: _____ # of Containers: _____
Equipment Blank Collected? ☐ Yes ☒ No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
DO: _____ mg/L
Nitrate: _____ mg/L
Sulfate: _____ mg/L
Alkalinity: _____ mg/L

5. COMMENTS

Intake at ~ 55 ft

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: Spartan mw-2

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
Client: Macgregor Personnel: BS
Project Location: Albany GA Weather: Sunny ~ 85°F

2. WELL DATA

Date Measured: 5.6.13 Time: AM Temporary Well: ☐ Yes ☒ No
Casing Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Screen Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Total Depth of Well: 68 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Static Water: 48.3 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Product: — feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Length of Water Column: 19.7 feet Well Volume: 3.28 gal Screened Interval (from GS): _____
Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 5.8.13 Time: 0745 Equipment Model(s):
Purge Method: ☐ Bailer, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Rope/Tubing ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Volume to Purge (minimum): 3 well volumes or 9.86 gallons
Was well purged dry? ☐ Yes ☐ No Pumping Rate: _____ gal/min Calibrated? ☒ Yes ☐ No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0800	0.25	7.07	19.73	0.510	-4.2	7.99	336	49.20'	
0815	1.00	7.06	19.81	0.507	32.6	7.76	195	49.20'	
0830	2.00	7.07	19.87	0.505	47.1	7.67	76.2	49.20'	
0845	3.00	7.07	19.85	0.504	47.4	7.61	51.1	49.20'	
0900	4.00	7.08	19.82	0.503	50.7	7.77	32.5	49.20'	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

Method(s): ☐ Bailer, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Tubing/Rope ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Depth to Water at Time of Sampling: _____ Field Filtered? ☐ Yes ☒ No
Sample ID: 13128-Spartan-mw-2 Sample Date: 5.8.13 Sample Time: 1435 # of Containers: 3
Duplicate Sample Collected? ☐ Yes ☒ No ID: 13128-Dup # of Containers: 3
Equipment Blank Collected? ☒ Yes ☐ No ID: 13128-EB # of Containers: 3

Geochemical Analyses

Ferrous Iron: _____ mg/L
DO: _____ mg/L
Nitrate: _____ mg/L
Sulfate: _____ mg/L
Alkalinity: _____ mg/L

5. COMMENTS

cloudy at start, no milky white sediment.
Intake at ~ 61 ft

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: Spartan MW-2

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
0915	5.00	7.12	19.97	0.502	51.3	7.94	22.3	49.20'	
0930	6.00	7.10	20.12	0.501	49.1	7.95	18.3	49.20'	
0945	7.00	7.11	20.26	0.501	44.7	7.93	15.6	49.20'	
1000	8.00	7.11	20.37	0.500	43.6	7.86	19.9	49.20'	
1015	9.00	7.10	20.39	0.500	45.0	7.88	18.9	49.20'	
1030	10.00	7.10	20.46	0.499	48.4	8.42	16.2	49.20'	
1045	11.00	7.09	20.37	0.499	52.0	8.48	24.7	49.20'	
1100	12.00	7.15	20.07	0.491	56.7	11.84	46.9	49.20'	
1115	13	7.15	20.57	0.500	59.1	11.22	27.8	49.20'	
1120	Took out pump. Bladder had large crease & had to be replaced.								
1140	14	7.11	21.53	0.503	18.2	8.00	55.4	49.20'	
1200	15	7.15	21.60	0.501	-9.5	7.91	16.5	49.20'	
1215	16	7.18	21.60	0.500	-15.9	7.83	83.5	49.20'	
1230	17	7.15	21.68	0.500	-3.3	7.75	54.3	49.20'	
1245	18	7.17	21.74	0.498	3.9	7.75	44.4	49.20'	
1300	19	7.18	21.72	0.497	6.7	7.88	28.6	49.20'	
1315	20	7.14	21.35	0.495	12.3	7.79	22.7	49.20'	
1330	21	7.12	21.43	0.496	15.7	7.75	19.1	49.20'	
1345	22	7.12	21.31	0.496	7.7	7.73	15.3	49.20'	
1400	23	7.15	21.07	0.496	13.1	7.69	14.6	49.20'	
1415	24	7.15	21.10	0.495	13.2	7.69	9.93	49.20'	
1430	25	7.14	21.05	0.496	8.4	7.77	8.35	49.20'	
1435	Collect sample								

Purge data continued on next sheet? ☐

WELL ID: Spartan MW-2

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Date: 5-6-13 Time: 0830
 Client: McGregor Personnel: BS
 Project Location: Albany GA Weather: Sunny & 80°F

2. WELL DATA

Casing Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
 Screen Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
 Total Depth of Well: 68 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
 Depth to Static Water: 48.3 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
 Depth to Product: — feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
 Length of Water Column: 19.7 feet Well Volume: 3.28 gal Screened Interval (from GS): _____
 Note: 2-inch well = 0.167 gal/ft 4-inch well = 0.667 gal/ft

3. PURGE DATA

Purge Method: ☐ Bailor, Size: _____ ☒ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
 Materials: Pump/Bailer ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field Cleaned ☐ Disposable
 Materials: Rope/Tubing ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☒ Disposable
 Was well purged dry? ☐ Yes ☒ No Pumping Rate: _____ gal/min

Equipment Model(s)

- Recline Pump
- YS-856
- RT-15CF

Time	Cum. Gallons Removed ≥ 5 Volumes	pH ± 0.1 S.U.	Temp ± 2 °C	Spec. Cond. > of ±10% or ±10 µS	ORP mV	DO mg/L	Turbidity > of ±10% or ≤ 10 NTU	Other: WL ft	Comments
0845	5	7.03	20.35	0.274	96.3	10.10	ADL	52.90	A lot of air
0900	8	6.98	20.24	0.245	98.6	10.25	ADL	48.50'	movement
0915	10	7.03	20.37	0.247	103.6	10.32	ADL	48.50	from pump
0930	15	7.18	20.36	0.275	98.0	10.25	787	48.50	
0945	17	7.02	20.40	0.292	100.0	10.21	ADL	48.50	
1005	19	7.03	20.38	0.501	99.3	10.32	621	48.50	
1025	21	7.10	20.45	0.499	95.2	10.31	942	48.50	
1045	25	6.96	20.40	0.314	95.4	11.11	ADL	48.50	
1100	30	6.97	20.47	0.480	88.2	10.15	ADL	48.50	
1115	35	7.05	20.54	0.474	87.7	10.07	867	48.50	thick sediment
1130	38	7.12	20.50	0.475	88.4	10.00	553	48.50	out of well.
1145	Pump stopped working. Air compressor stopped.								

Purge data continued?

4. COMMENTS

milky white at start

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Appendix B: Laboratory Analytical Reports





ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 27, 2013

Sarah Jones
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 394-2997
FAX: (770) 396-9495

RE: MacGregor Golf

Dear Sarah Jones:

Order No: 1302G53

Analytical Environmental Services, Inc. received 2 samples on 2/21/2013 10:45:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
- AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck
Project Manager



Work Order: 1302653

Date: 2-20-13 Page _____ of _____

COMPANY:		ADDRESS:		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.																		
PHONE:		FAX:												REMARKS																		
SAMPLED BY:		SIGNATURE:		PRESERVATION (See codes)																												
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	Hg	Pb	Cd	Cr	Mn	Ni	Co	Fe	Zn	Cu	V	Mo	Se	As	Sr	Ba	K	Na	Li	Rb	Cs	F	Cl	Br	I	No # of Containers
1	13051-mw-26	2-20-13	1430	X		GW	X	X	X	X																						3
2	13051-Dup	↓	1200	Y		GW	X	X	X	X																						3
3	Trip blanks																															2
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																
13																																
14																																

RELINQUISHED BY		DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION		RECEIPT	
1: [Signature]		2-20-13 1600	1: [Signature] 2/21/13 10:45		PROJECT NAME: MarGraps		Total # of Containers	6
2:			2:		PROJECT #:		<input checked="" type="radio"/> Turnaround Time Request <input type="radio"/> Standard 5 Business Days <input type="radio"/> 2 Business Day Rush <input type="radio"/> Next Business Day Rush <input type="radio"/> Same Day Rush (auth req.) <input type="radio"/> Other	
3:			3:		SITE ADDRESS: 1601 S Slappey Drive Albany			
					SEND REPORT TO: TBayman@brownca.com			
SPECIAL INSTRUCTIONS/COMMENTS: No trip blanks		SHIPMENT METHOD OUT / / VIA: IN / / VIA: CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER		INVOICE TO: (IF DIFFERENT FROM ABOVE) QUOTE #: PO#:		STATE PROGRAM (if any): E-mail? N; Fax? Y N DATA PACKAGE: I II III IV		

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHERWISE SPECIFIED

MATRIX CODES:	A = Air	GW = Groundwater	SE = Sediment	SO = Soil	SW = Surface Water	W = Water (Blanks)	DW = Drinking Water (Blanks)	O = Other (specify)	WW = Waste Water
PRESERVATIVE CODES:	H+I = Hydrochloric acid + ice	I = Ice only	N = Nitric acid	S+I = Sulfuric acid + ice	S/M+I = Sodium Bisulfate/Methanol + ice	O = Other (specify)	NA = None		

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 27-Feb-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302G53-001

Client Sample ID: 13051-MW-26
 Collection Date: 2/20/2013 2:30:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Chromium	BRL	0.0100		mg/L	172690	1	02/21/2013 15:24	TA
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	0.0959	0.0100		mg/L	R239155	1	02/21/2013 11:50	CG
Chromium, Hexavalent	BRL	0.0100		mg/L	R239155	1	02/21/2013 11:50	CG
METALS, TOTAL SW6010C					(SW3010A)			
Chromium	0.0959	0.0100		mg/L	172746	1	02/25/2013 18:52	MR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 27-Feb-13

Client:	BROWN AND CALDWELL	Client Sample ID:	13051-DUP
Project Name:	MacGregor Golf	Collection Date:	2/20/2013 12:00:00 PM
Lab ID:	1302G53-002	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Chromium	BRL	0.0100		mg/L	172690	1	02/21/2013 15:27	TA
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	0.0979	0.0100		mg/L	R239155	1	02/21/2013 11:50	CG
Chromium, Hexavalent	BRL	0.0100		mg/L	R239155	1	02/21/2013 11:50	CG
METALS, TOTAL SW6010C					(SW3010A)			
Chromium	0.0979	0.0100		mg/L	172746	1	02/25/2013 19:02	MR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Brown + C Work Order Number 1302653

Checklist completed by [Signature] Date 2/24/13

Carrier name: FedEx ☒ UPS ☐ Courier ☐ Client ☐ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐

Container/Temp Blank temperature in compliance? ($4^{\circ}\text{C} \pm 2$)* Yes ☒ No ☐

Cooler #1 3-1 Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☒ Yes ☐ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☒

Adjusted? ☐ Checked by [Signature]

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Client: BROWN AND CALDWELL
Project: MacGregor Golf
Lab Order: 1302G53

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1302G53-001A	13051-MW-26	2/20/2013 2:30:00PM	Groundwater	TOTAL METALS BY ICP		02/22/2013	02/25/2013
1302G53-001B	13051-MW-26	2/20/2013 2:30:00PM	Groundwater	DISSOLVED METALS BY ICP		02/21/2013	02/21/2013
1302G53-001C	13051-MW-26	2/20/2013 2:30:00PM	Groundwater	Hexavalent Chromium			02/21/2013
1302G53-002A	13051-DUP	2/20/2013 12:00:00PM	Groundwater	TOTAL METALS BY ICP		02/22/2013	02/25/2013
1302G53-002B	13051-DUP	2/20/2013 12:00:00PM	Groundwater	DISSOLVED METALS BY ICP		02/21/2013	02/21/2013
1302G53-002C	13051-DUP	2/20/2013 12:00:00PM	Groundwater	Hexavalent Chromium			02/21/2013

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1302G53

ANALYTICAL QC SUMMARY REPORT

BatchID: 172690

Sample ID: MB-172690	Client ID:					Units: mg/L	Prep Date: 02/20/2013	Run No: 238851			
SampleType: MBLK	TestCode: METALS, DISSOLVED	SW6010C	BatchID: 172690				Analysis Date: 02/21/2013	Seq No: 5001183			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	BRL	0.0100	0	0	0	0	0	0	0	0	
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Sample ID: LCS-172690	Client ID:					Units: mg/L	Prep Date: 02/20/2013	Run No: 238851			
SampleType: LCS	TestCode: METALS, DISSOLVED	SW6010C	BatchID: 172690				Analysis Date: 02/21/2013	Seq No: 5001182			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	0.9892	0.0100	1	0	98.9	80	120	0	0	0	
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Sample ID: 1302F76-002AMS	Client ID:					Units: mg/L	Prep Date: 02/20/2013	Run No: 238851			
SampleType: MS	TestCode: METALS, DISSOLVED	SW6010C	BatchID: 172690				Analysis Date: 02/21/2013	Seq No: 5001185			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	0.8633	0.0100	1	0	86.3	75	125	0	0	0	
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Sample ID: 1302F76-002AMSD		Client ID:		Units: mg/L		Prep Date: 02/20/2013		Run No: 238851			
SampleType: MSD		TestCode: METALS, DISSOLVED		BatchID: 172690		Analysis Date: 02/21/2013		Seq No: 5001188			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	0.8680	0.0100	1	0	86.8	75	125	0.8633	0.535	20	
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Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1302G53

ANALYTICAL QC SUMMARY REPORT

BatchID: 172746

Sample ID: MB-172746	Client ID:					Units: mg/L	Prep Date: 02/22/2013	Run No: 239053			
SampleType: MBLK	TestCode: METALS, TOTAL	SW6010C				BatchID: 172746	Analysis Date: 02/25/2013	Seq No: 5004859			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	BRL	0.0100	0	0	0	0	0	0	0	0	
----------	-----	--------	---	---	---	---	---	---	---	---	--

Sample ID: LCS-172746	Client ID:					Units: mg/L	Prep Date: 02/22/2013	Run No: 239053			
SampleType: LCS	TestCode: METALS, TOTAL	SW6010C				BatchID: 172746	Analysis Date: 02/25/2013	Seq No: 5004856			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	1.019	0.0100	1	0	102	80	120	0	0	0	
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Sample ID: 1302G36-001BMS	Client ID:					Units: mg/L	Prep Date: 02/22/2013	Run No: 239053			
SampleType: MS	TestCode: METALS, TOTAL	SW6010C				BatchID: 172746	Analysis Date: 02/25/2013	Seq No: 5004861			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	1.030	0.0100	1	0.004057	103	75	125	0	0	0	
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Sample ID: 1302G36-001BMSD	Client ID:					Units: mg/L	Prep Date: 02/22/2013	Run No: 239053			
SampleType: MSD	TestCode: METALS, TOTAL	SW6010C				BatchID: 172746	Analysis Date: 02/25/2013	Seq No: 5004862			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	1.018	0.0100	1	0.004057	101	75	125	1.030	1.24	20	
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Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1302G53

ANALYTICAL QC SUMMARY REPORT

BatchID: R239155

Sample ID: MB-R239155	Client ID:					Units: mg/L	Prep Date:			Run No: 239155	
SampleType: MBLK	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R239155	Analysis Date: 02/21/2013			Seq No: 5006868	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent BRL 0.0100 0 0 0 0 0 0 0 0 0

Sample ID: LCS-R239155	Client ID:					Units: mg/L	Prep Date:		Run No: 239155		
SampleType: LCS	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R239155	Analysis Date: 02/21/2013		Seq No: 5006869		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.5272 0.0100 0.5 0 105 90 110 0 0 0

Sample ID: 1302G53-001CMS	Client ID: 13051-MW-26	Units: mg/L			Prep Date:	Run No: 239155					
SampleType: MS	TestCode: Hexavalent Chromium in Water SW7196A	BatchID: R239155			Analysis Date: 02/21/2013	Seq No: 5006874					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.4714 0.0100 0.5 0 94.3 85 115 0 0 0

Sample ID: 1302G53-001CMSD	Client ID: 13051-MW-26	Units: mg/L			Prep Date:			Run No: 239155			
SampleType: MSD	TestCode: Hexavalent Chromium in Water	SW7196A	BatchID: R239155			Analysis Date: 02/21/2013			Seq No: 5006875		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.4714 0.0100 0.5 0 94.3 85 115 0.4714 0 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 27, 2013

Sarah Jones
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 394-2997
FAX: (770) 396-9495

RE: MacGregor Golf

Dear Sarah Jones:

Order No: 1302I17

Analytical Environmental Services, Inc. received 2 samples on 2/22/2013 11:40:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
- AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck
Project Manager



TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

2-24/3 Work Order: 1302117

Date: 10/10/2013 Page 1 of 1

COMPANY:		ADDRESS:		ANALYSIS REQUESTED								Visit our website www.aesatlanta.com		No # of Containers	
												to check on the status of your results, place bottle orders, etc.			
PHONE:		FAX:													
SAMPLED BY:		SIGNATURE:													
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)								REMARKS
		DATE	TIME												
1	13051-MW-26	2-20-13	1130	X		GW	X	X	X	X			MH	No Samples in cooler	
2	13051-Dmp	2-20-13	1200	X		GW	X	X	X	X			MH		
3	13052-Spartan-MW-d	2-21-13	1650	X		GW	X	X	X	X					
4	13052-EB	2-21-13	1710	X		GW	X	X	X	X					
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
RELINQUISHED BY		DATE/TIME		RECEIVED BY		DATE/TIME		PROJECT INFORMATION						RECEIPT	
1:				1:		2/22/13		PROJECT NAME: MacGregor						Total # of Containers	
2:				2:		11:40		PROJECT #:						Turnaround Time Request	
3:				3:				SITE ADDRESS: 1601 S. Slappy Drive Albany, GA						Standard 5 Business Days	
								SEND REPORT TO: TBerryman@brownandcalder.com						2 Business Day Rush	
SPECIAL INSTRUCTIONS/COMMENTS:				SHIPMENT METHOD				INVOICE TO:						Next Business Day Rush	
Hexavalent + Trivalent Cr to be analyzed too, expressed shipped, no 13051 samples in cooler, ignore				OUT / / VIA:				(IF DIFFERENT FROM ABOVE)						Same Day Rush (auth req.)	
				IN / / VIA:				QUOTE #:						Other	
				CLIENT FedEx UPS MAIL COURIER				PO#:						STATE PROGRAM (if any):	
				GREYHOUND OTHER										E-mail? Y/N; Fax? Y/N	
														DATA PACKAGE: I II III IV	

CODES: A - Air GW - Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

POSITIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Client: BROWN AND CALDWELL**Project:** MacGregor Golf**Lab ID:** 1302I17**Case Narrative**

Hexavalent Chromium Analysis by Method 7196:

Due to sample matrix, sample 1302I17-001C required dilution during analysis resulting in elevated reporting limits.

Analytical Environmental Services, Inc

Date: 27-Feb-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302H17-001

Client Sample ID: 13052-SPARTA-MW-2
 Collection Date: 2/21/2013 4:50:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Chromium	BRL	0.0100		mg/L	172862	1	02/26/2013 10:08	MR
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	0.0101	0.0100		mg/L	R239160	1	02/22/2013 16:00	CG
Chromium, Hexavalent	BRL	0.0500		mg/L	R239160	5	02/22/2013 16:00	CG
METALS, TOTAL SW6010C					(SW3010A)			
Chromium	0.0101	0.0100		mg/L	172823	1	02/26/2013 10:50	MR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 27-Feb-13

Client:	BROWN AND CALDWELL	Client Sample ID:	13052-EB
Project Name:	MacGregor Golf	Collection Date:	2/21/2013 5:10:00 PM
Lab ID:	1302117-002	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED								
SW6010C								
					(SW3005A)			
Chromium	BRL	0.0100		mg/L	172862	1	02/26/2013 10:33	MR
Hexavalent Chromium in Water								
SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R239160	1	02/22/2013 16:00	CG
Chromium, Hexavalent	BRL	0.0100		mg/L	R239160	1	02/22/2013 16:00	CG
METALS, TOTAL								
SW6010C								
					(SW3010A)			
Chromium	BRL	0.0100		mg/L	172823	1	02/26/2013 12:46	MR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Brown & Caldwell

Work Order Number 1302717

Checklist completed by Jam B
Signature

2/22/13
Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☐ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ☒ No ☐

Cooler #1 3.3° Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☒

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☒ Yes ☐ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by SB

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Quality Assurance\\Checklists Procedures Sign-Off Templates\\Checklists\\Sample Receipt Checklists\\Sample_Cooler_Receipt_Checklist

Client: BROWN AND CALDWELL
Project: MacGregor Golf
Lab Order: 1302117

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1302117-001A	13052-SPARTA-MW-2	2/21/2013 4:50:00PM	Groundwater	TOTAL METALS BY ICP		02/25/2013	02/26/2013
1302117-001B	13052-SPARTA-MW-2	2/21/2013 4:50:00PM	Groundwater	DISSOLVED METALS BY ICP		02/25/2013	02/26/2013
1302117-001C	13052-SPARTA-MW-2	2/21/2013 4:50:00PM	Groundwater	Hexavalent Chromium			02/22/2013
1302117-002A	13052-EB	2/21/2013 5:10:00PM	Groundwater	TOTAL METALS BY ICP		02/25/2013	02/26/2013
1302117-002B	13052-EB	2/21/2013 5:10:00PM	Groundwater	DISSOLVED METALS BY ICP		02/25/2013	02/26/2013
1302117-002C	13052-EB	2/21/2013 5:10:00PM	Groundwater	Hexavalent Chromium			02/22/2013

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1302I17

ANALYTICAL QC SUMMARY REPORT

BatchID: 172823

Sample ID: MB-172823	Client ID:					Units: mg/L	Prep Date: 02/25/2013	Run No: 239076			
SampleType: MBLK	TestCode: METALS, TOTAL	SW6010C	BatchID: 172823				Analysis Date: 02/26/2013	Seq No: 5005361			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium BRL 0.0100 0 0 0 0 0 0 0 0 0

Sample ID: LCS-172823	Client ID:					Units: mg/L	Prep Date: 02/25/2013	Run No: 239076			
SampleType: LCS	TestCode: METALS, TOTAL	SW6010C	BatchID: 172823				Analysis Date: 02/26/2013	Seq No: 5005360			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9949 0.0100 1 0 99.5 80 120 0 0 0

Sample ID: 1302I17-001AMS	Client ID: 13052-SPARTA-MW-2	Units: mg/L	Prep Date: 02/25/2013	Run No: 239076							
SampleType: MS	TestCode: METALS, TOTAL SW6010C	BatchID: 172823	Analysis Date: 02/26/2013	Seq No: 5005371							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9750 0.0100 1 0.01006 96.5 75 125 0 0 0

Sample ID: 1302I17-001AMSD	Client ID: 13052-SPARTA-MW-2	Units: mg/L	Prep Date: 02/25/2013	Run No: 239076							
SampleType: MSD	TestCode: METALS, TOTAL SW6010C	BatchID: 172823	Analysis Date: 02/26/2013	Seq No: 5005374							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9768 0.0100 1 0.01006 96.7 75 125 0.9750 0.183 20

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1302I17

ANALYTICAL QC SUMMARY REPORT

BatchID: 172862

Sample ID: MB-172862	Client ID:				Units: mg/L	Prep Date: 02/25/2013	Run No: 239070				
SampleType: MBLK	TestCode: METALS, DISSOLVED	SW6010C	BatchID: 172862			Analysis Date: 02/26/2013	Seq No: 5005224				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	BRL	0.0100	0	0	0	0	0	0	0	0	
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Sample ID: LCS-172862	Client ID:				Units: mg/L	Prep Date: 02/25/2013	Run No: 239070				
SampleType: LCS	TestCode: METALS, DISSOLVED	SW6010C	BatchID: 172862			Analysis Date: 02/26/2013	Seq No: 5005222				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	0.9797	0.0100	1	0	98	80	120	0	0	0	
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Sample ID: 1302I17-001BMS	Client ID: 13052-SPARTA-MW-2	Units: mg/L			Prep Date: 02/25/2013	Run No: 239070					
SampleType: MS	TestCode: METALS, DISSOLVED SW6010C	BatchID: 172862			Analysis Date: 02/26/2013	Seq No: 5005229					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	0.9409	0.0100	1	0.003794	93.7	75	125	0	0	0	
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Sample ID: 1302I17-001BMSD	Client ID: 13052-SPARTA-MW-2	Units: mg/L			Prep Date: 02/25/2013	Run No: 239070					
SampleType: MSD	TestCode: METALS, DISSOLVED SW6010C	BatchID: 172862			Analysis Date: 02/26/2013	Seq No: 5005231					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	0.9583	0.0100	1	0.003794	95.4	75	125	0.9409	1.84	20	
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Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1302I17

ANALYTICAL QC SUMMARY REPORT**BatchID: R239160**

Sample ID: MB-R239160	Client ID:					Units: mg/L	Prep Date:			Run No: 239160	
SampleType: MBLK	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R239160	Analysis Date: 02/22/2013			Seq No: 5006945	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent BRL 0.0100 0 0 0 0 0 0 0 0

Sample ID: LCS-R239160	Client ID:					Units: mg/L	Prep Date:		Run No: 239160		
SampleType: LCS	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R239160	Analysis Date: 02/22/2013		Seq No: 5006946		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.5111 0.0100 0.5 0 102 90 110 0 0 0

Sample ID: 1302I17-002CMS	Client ID: 13052-EB	Units: mg/L			Prep Date:			Run No: 239160			
SampleType: MS	TestCode: Hexavalent Chromium in Water SW7196A	BatchID: R239160			Analysis Date: 02/22/2013			Seq No: 5006949			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.4938 0.0100 0.5 0.003100 98.1 85 115 0 0 0

Sample ID: 1302I17-002CMSD	Client ID: 13052-EB	Units: mg/L			Prep Date:			Run No: 239160			
SampleType: MSD	TestCode: Hexavalent Chromium in Water SW7196A	BatchID: R239160			Analysis Date: 02/22/2013			Seq No: 5006951			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.4909 0.0100 0.5 0.003100 97.6 85 115 0.4938 0.589 20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

March 05, 2013

Sarah Jones
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 394-2997
FAX: (770) 396-9495

RE: MacGregor Golf

Dear Sarah Jones:

Order No: 1302K13

Analytical Environmental Services, Inc. received 22 samples on 2/25/2013 3:14:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
- AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 13024113

Date: _____ Page _____ of 3

COMP Brown and Caldwell		ADDRESS: 990 Hammond Drive Suite 400, Atlanta, GA 30328		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers	
PHONE:		FAX:															
SAMPLI George Skala IV		SIGNATURE: <i>[Signature]</i>												REMARKS			
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)										
		DATE	TIME														
1	13053-B4-3-4	2-22-13	0855	X		So	X	X									
2	13053-B4-7-8		0905	X		So	X	X									
3	13053-B4 10-11		0915	X		So	X	X									
4	13053-B4-15-16		0920	X		So	X	X									
5	13053-GP-1-45		0940	X		So	X	X									
6	13053-GP-1-8-6		0950	X		So	X	X									
7	13053-GP-1 14-15		0955	X		So	X	X									
8	13053-GP-1 14-20		1000	X		So	X	X									
9	13053-GP-2 4-5		1025	X		So	X	X									
10	13053-GP-2 7-8		1030	X		So	X	X									
11	13053-GP-2 14-15		1040	X		So	X	X									
12	13053-GP-2 18-19		1050	X		So	X	X									
13	13053-GP-3 4-5		1110	X		So	X	X									
14	13053-GP-3 7-8		1120	X		So	X	X									
RELINQUISHED BY		DATE/TIME	RECEIVED BY		DATE/TIME	PROJECT INFORMATION										RECEIPT	
1: <i>[Signature]</i>		2-25-13 1453	1: <i>[Signature]</i>		2-25-13 1453	PROJECT NAME: MacGregor Golf										Total # of Containers	
2: <i>[Signature]</i>		2-25-13 1514	2: <i>[Signature]</i>		2/25/13 314	PROJECT #:										<input checked="" type="radio"/> Turnaround Time Request <input type="radio"/> Standard 5 Business Days <input type="radio"/> 2 Business Day Rush <input type="radio"/> Next Business Day Rush <input type="radio"/> Same Day Rush (auth req.) <input type="radio"/> Other _____	
3:			3:			SITE ADDRESS: 1601 S Slappey Blvd Albany, GA											
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD		SEND REPORT TO: Tberryman@brwnccald.com										STATE PROGRAM (if any):			
		OUT / / VIA:		INVOICE TO:										E-mail? <input checked="" type="radio"/> N; Fax? <input type="radio"/> Y / N			
		IN / / VIA:		(IF DIFFERENT FROM ABOVE)										DATA PACKAGE: I <input checked="" type="radio"/> II <input type="radio"/> III <input type="radio"/> IV			
		CLIENT FedEx UPS MAIL <input checked="" type="radio"/> COURIER		QUOTE #:										PO#:			
		GREYHOUND OTHER															

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client



TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1302#13

Page 2 of 5

COMP			ADDRESS:						ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.			No # of Containers
Brown and Caldwell			990 Hammond Drive Ste 400, Atlanta, GA																			
PHONE:			FAX:																			
SAMPLED BY: <i>[Signature]</i>			SIGNATURE: <i>[Signature]</i>						<div style="display: flex; justify-content: space-between;"> 915-1-2-DCE Vinyl Chloride </div>										REMARKS			
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)															
		DATE	TIME				H+I															
1	13053-GP-3-14-15	2/22/2013	1125	x		GW	X	X														
2	13053-GP-3-17-18	2/22/2013	1130	x		GW	X	X														
3	13053-GP-4-3-4	2/22/2013	1200	x		GW	X	X														
4	13053-GP-4-9-10	2/22/2013	1205	x		GW	X	X														
5	13053-GP-4-14-15	2/22/2013	1215	x		GW	X	X														
6	13053-GP-4-17-18	2/22/2013	1220	x		GW	X	X														
7	13053-GP-5-4-5	2/22/2013	1330	x		GW	X	X									Hold					
8	13053-GP-5-7-8	2/22/2013	1340	x		GW	X	X									Hold					
9	13053-GP-5-12-13	2/22/2013	1350	x		GW	X	X									Hold					
10	13053-GP-5-19-20	2/22/2013	1355	x		GW	X	X									Hold					
11	13053-GP-6-2-3	2/22/2013	1400	x		GW	X	X									Hold					
12	13053-GP-6-8-9	2/22/2013	1405	x		GW	X	X									Hold					
13	13053-GP-6-14-15	2/22/2013	1410	x		GW	X	X									Hold					
14	13053-GP-6-19-20	2/22/2013	1415	x		GW	X	X									Hold					

RELINQUISHED BY			DATE/TIME			PROJECT INFORMATION			RECEIPT		
1:	<i>[Signature]</i>	2-25-13	1453	1:	<i>[Signature]</i>	2-25-13	1453	PROJECT NAME: MacGregor			Total # of Containers
2:	<i>[Signature]</i>	2-25-13	1514	2:	<i>[Signature]</i>	2/25/13	3:14	PROJECT #:			<input checked="" type="radio"/> Turnaround Time Request
3:				3:				SITE ADDRESS: Albany			<input type="radio"/> Standard 5 Business Days
							SEND REPORT TO: Tberryman@brwncaid.com			<input type="radio"/> 2 Business Day Rush	
SPECIAL INSTRUCTIONS/COMMENTS:							INVOICE TO: (IF DIFFERENT FROM ABOVE)			<input type="radio"/> Next Business Day Rush	
										<input type="radio"/> Same Day Rush (auth req.)	
										<input type="radio"/> Other _____	
SHIPMENT METHOD OUT / / VIA: IN / / VIA: CLIENT FedEx UPS MAIL COURTIER GREYHOUND OTHER _____							QUOTE #: PO#:			STATE PROGRAM (if any): E-mail Y/N; Fax? Y/N	
										DATA PACKAGE: I II III IV	

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

ne White Copy - Original; Yellow Copy - Client



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1302413

Date: Page 3 of 3

COMP Brown and Caldwell		ADDRESS: 990 Hammond Drive Ste 400, Atlanta, GA		ANALYSIS REQUESTED												Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers
PHONE:		FAX:																
SAMPLED BY: <i>Morgan Hada</i>		SIGNATURE: <i>Morgan Hada</i>														REMARKS		
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)											
		DATE	TIME				H+1											
1	13053-GP-7-3-4	2/22/2013	1430	x		GW	X	X									Hold	
2	13053-GP-7-9-10	2/22/2013	1435	x		GW	X	X									Hold	
3	13053-GP-7-11-12	2/22/2013	1445	x		GW	X	X									Hold	
4	13053-GP-7-17-18	2/22/2013	1450	x		GW	X	X									Hold	
5	13053-GP-8-3-4	2/22/2013	1505	x		GW	X	X									Hold	
6	13053-GP-8-9-10	2/22/2013	1510	x		GW	X	X									Hold	
7	13053-GP-8-14-15	2/22/2013	1520	x		GW	X	X									Hold	
8	13053-GP-8-19-20	2/22/2013	1525	x		GW	X	X									Hold	
9	Trip Blanks	2/22/2013		x		W	X	X										
10	13053-EB	2/22/2013	1600	x		W	X	X										
11	13053-T-Clip Soil	2/22/2013	1615		x	So	X	X	X								hold	
12	13053-T-Clip Water	2/23/2013	1630		x	GW	X	X	X								hold	
13																		
14																		

RELINQUISHED BY		DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION		RECEIPT	
1: <i>Morgan Hada</i>		2-25-13 1453	2-25-13 1453		PROJECT NAME: MacGregor		Total # of Containers	
2: <i>Morgan Hada</i>		2-25-13 1514	2-25-13 3:14		PROJECT #:		Turnaround Time Request	
3:					SITE ADDRESS: Albany		<input checked="" type="radio"/> Standard 5 Business Days <input type="radio"/> 2 Business Day Rush <input type="radio"/> Next Business Day Rush <input type="radio"/> Same Day Rush (auth req.) <input type="radio"/> Other	
SPECIAL INSTRUCTIONS/COMMENTS:			SHIPMENT METHOD		SEND REPORT TO: Tberryman@brwnald.com		STATE PROGRAM (if any):	
			OUT / / VIA: IN / / VIA: CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER		INVOICE TO: (IF DIFFERENT FROM ABOVE)		E-mail? <input checked="" type="radio"/> N; Fax? <input checked="" type="radio"/> Y/N	
					QUOTE #:		DATA PACKAGE: I II III IV	

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Client: BROWN AND CALDWELL
Project: MacGregor Golf
Lab ID: 1302K13

Case Narrative

Sample 1302K13-001A has 13053-B4-0-5 on sample label but came in set with vials. Sample 1302K13-006B has 13053-GP-1-4-5 on label but came in set

Volatile Organic Compounds Analysis by Method 8260B:

Percent recovery for the internal standard compound 1,4-Dichlorobenzene-d4 on sample 1302K13-013A was outside control limits biased low due to suspected matrix interference.

Percent recovery for the internal standard compounds Chlorobenzene-d5 & 1,4-Dichlorobenzene-d4 on sample 1302K13-006A were outside control limits biased low due to suspected matrix interference.

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-001

Client Sample ID: 13053-B4-3-4
 Collection Date: 2/22/2013 8:55:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	1500	310		ug/Kg-dry	173049	50	03/02/2013 00:27	MD
Vinyl chloride	BRL	8.7		ug/Kg-dry	172966	1	02/28/2013 23:58	MD
Surr: 4-Bromofluorobenzene	89.3	63.8-133		%REC	173049	50	03/02/2013 00:27	MD
Surr: 4-Bromofluorobenzene	95.6	63.8-133		%REC	172966	1	02/28/2013 23:58	MD
Surr: Dibromofluoromethane	94.9	74.3-130		%REC	173049	50	03/02/2013 00:27	MD
Surr: Dibromofluoromethane	104	74.3-130		%REC	172966	1	02/28/2013 23:58	MD
Surr: Toluene-d8	96.6	72.8-122		%REC	173049	50	03/02/2013 00:27	MD
Surr: Toluene-d8	95.8	72.8-122		%REC	172966	1	02/28/2013 23:58	MD
PERCENT MOISTURE D2216								
Percent Moisture	11.5	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-002

Client Sample ID: 13053-B4-7-8
 Collection Date: 2/22/2013 9:05:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	110	5.3		ug/Kg-dry	172966	1	03/01/2013 00:26	MD
Vinyl chloride	BRL	11		ug/Kg-dry	172966	1	03/01/2013 00:26	MD
Surr: 4-Bromofluorobenzene	100	63.8-133		%REC	172966	1	03/01/2013 00:26	MD
Surr: Dibromofluoromethane	99.4	74.3-130		%REC	172966	1	03/01/2013 00:26	MD
Surr: Toluene-d8	97.3	72.8-122		%REC	172966	1	03/01/2013 00:26	MD
PERCENT MOISTURE D2216								
Percent Moisture	23.9	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-003

Client Sample ID: 13053-B4-10-11
 Collection Date: 2/22/2013 9:15:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	140	6.3		ug/Kg-dry	172966	1	03/01/2013 00:54	MD
Vinyl chloride	BRL	13		ug/Kg-dry	172966	1	03/01/2013 00:54	MD
Surr: 4-Bromofluorobenzene	97.3	63.8-133		%REC	172966	1	03/01/2013 00:54	MD
Surr: Dibromofluoromethane	101	74.3-130		%REC	172966	1	03/01/2013 00:54	MD
Surr: Toluene-d8	99.9	72.8-122		%REC	172966	1	03/01/2013 00:54	MD
PERCENT MOISTURE D2216								
Percent Moisture	29.5	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-004

Client Sample ID: 13053-B4-15-19
 Collection Date: 2/22/2013 9:20:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	130	7.3		ug/Kg-dry	172966	1	03/01/2013 01:22	MD
Vinyl chloride	BRL	15		ug/Kg-dry	172966	1	03/01/2013 01:22	MD
Surr: 4-Bromofluorobenzene	97.8	63.8-133		%REC	172966	1	03/01/2013 01:22	MD
Surr: Dibromofluoromethane	102	74.3-130		%REC	172966	1	03/01/2013 01:22	MD
Surr: Toluene-d8	98.9	72.8-122		%REC	172966	1	03/01/2013 01:22	MD
PERCENT MOISTURE D2216								
Percent Moisture	15.0	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-005

Client Sample ID: 13053-GP-1-4-5
 Collection Date: 2/22/2013 9:40:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	13000	2800		ug/Kg-dry	173049	500	03/04/2013 13:05	NP
Vinyl chloride	BRL	8.9		ug/Kg-dry	172966	1	03/01/2013 01:50	MD
Surr: 4-Bromofluorobenzene	86.5	63.8-133		%REC	173049	500	03/04/2013 13:05	NP
Surr: 4-Bromofluorobenzene	84.8	63.8-133		%REC	172966	1	03/01/2013 01:50	MD
Surr: Dibromofluoromethane	108	74.3-130		%REC	173049	500	03/04/2013 13:05	NP
Surr: Dibromofluoromethane	102	74.3-130		%REC	172966	1	03/01/2013 01:50	MD
Surr: Toluene-d8	100	72.8-122		%REC	173049	500	03/04/2013 13:05	NP
Surr: Toluene-d8	96.6	72.8-122		%REC	172966	1	03/01/2013 01:50	MD
PERCENT MOISTURE D2216								
Percent Moisture	22.0	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-006

Client Sample ID: 13053-GP-1-5-6
 Collection Date: 2/22/2013 9:50:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	120000	6600		ug/Kg-dry	173049	1000	03/04/2013 12:34	NP
Vinyl chloride	23	13		ug/Kg-dry	173049	1	03/01/2013 02:19	MD
Surr: 4-Bromofluorobenzene	78.7	63.8-133		%REC	173049	1	03/01/2013 02:19	MD
Surr: 4-Bromofluorobenzene	90.3	63.8-133		%REC	173049	1000	03/04/2013 12:34	NP
Surr: Dibromofluoromethane	104	74.3-130		%REC	173049	1000	03/04/2013 12:34	NP
Surr: Dibromofluoromethane	111	74.3-130		%REC	173049	1	03/01/2013 02:19	MD
Surr: Toluene-d8	88.4	72.8-122		%REC	173049	1	03/01/2013 02:19	MD
Surr: Toluene-d8	99.4	72.8-122		%REC	173049	1000	03/04/2013 12:34	NP
PERCENT MOISTURE D2216								
Percent Moisture	30.1	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-007

Client Sample ID: 13053-GP-1-14-15
 Collection Date: 2/22/2013 9:55:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	110	6.9		ug/Kg-dry	172966	1	03/01/2013 10:52	MD
Vinyl chloride	BRL	14		ug/Kg-dry	172966	1	03/01/2013 10:52	MD
Surr: 4-Bromofluorobenzene	95.5	63.8-133		%REC	172966	1	03/01/2013 10:52	MD
Surr: Dibromofluoromethane	95.5	74.3-130		%REC	172966	1	03/01/2013 10:52	MD
Surr: Toluene-d8	97.4	72.8-122		%REC	172966	1	03/01/2013 10:52	MD
PERCENT MOISTURE D2216								
Percent Moisture	21.3	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-008

Client Sample ID: 13053-GP-1-19-20
 Collection Date: 2/22/2013 10:00:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	580	330		ug/Kg-dry	173049	50	03/01/2013 23:02	MD
Vinyl chloride	BRL	8.0		ug/Kg-dry	172966	1	03/01/2013 03:15	MD
Surr: 4-Bromofluorobenzene	86.8	63.8-133		%REC	173049	50	03/01/2013 23:02	MD
Surr: 4-Bromofluorobenzene	98.5	63.8-133		%REC	172966	1	03/01/2013 03:15	MD
Surr: Dibromofluoromethane	91.6	74.3-130		%REC	173049	50	03/01/2013 23:02	MD
Surr: Dibromofluoromethane	103	74.3-130		%REC	172966	1	03/01/2013 03:15	MD
Surr: Toluene-d8	95.4	72.8-122		%REC	173049	50	03/01/2013 23:02	MD
Surr: Toluene-d8	98.7	72.8-122		%REC	172966	1	03/01/2013 03:15	MD
PERCENT MOISTURE D2216								
Percent Moisture	12.0	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-009

Client Sample ID: 13053-GP-2 4-5
 Collection Date: 2/22/2013 10:25:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	66	4.7		ug/Kg-dry	172966	1	03/01/2013 03:43	MD
Vinyl chloride	BRL	9.3		ug/Kg-dry	172966	1	03/01/2013 03:43	MD
Surr: 4-Bromofluorobenzene	89.2	63.8-133		%REC	172966	1	03/01/2013 03:43	MD
Surr: Dibromofluoromethane	101	74.3-130		%REC	172966	1	03/01/2013 03:43	MD
Surr: Toluene-d8	95.8	72.8-122		%REC	172966	1	03/01/2013 03:43	MD
PERCENT MOISTURE D2216								
Percent Moisture	15.2	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-010

Client Sample ID: 13053-GP-2 7-8
 Collection Date: 2/22/2013 10:30:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	BRL	6.0		ug/Kg-dry	172966	1	03/01/2013 04:12	MD
Vinyl chloride	BRL	12		ug/Kg-dry	172966	1	03/01/2013 04:12	MD
Surr: 4-Bromofluorobenzene	89.4	63.8-133		%REC	172966	1	03/01/2013 04:12	MD
Surr: Dibromofluoromethane	103	74.3-130		%REC	172966	1	03/01/2013 04:12	MD
Surr: Toluene-d8	97.6	72.8-122		%REC	172966	1	03/01/2013 04:12	MD
PERCENT MOISTURE D2216								
Percent Moisture	32.2	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-011

Client Sample ID: 13053-GP-2 14-15
 Collection Date: 2/22/2013 10:40:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	1000	230		ug/Kg-dry	173049	50	03/01/2013 22:33	MD
Vinyl chloride	BRL	14		ug/Kg-dry	173013	1	03/01/2013 05:36	MD
Surr: 4-Bromofluorobenzene	86.6	63.8-133		%REC	173049	50	03/01/2013 22:33	MD
Surr: 4-Bromofluorobenzene	93.5	63.8-133		%REC	173013	1	03/01/2013 05:36	MD
Surr: Dibromofluoromethane	96.9	74.3-130		%REC	173013	1	03/01/2013 05:36	MD
Surr: Dibromofluoromethane	106	74.3-130		%REC	173049	50	03/01/2013 22:33	MD
Surr: Toluene-d8	94.3	72.8-122		%REC	173049	50	03/01/2013 22:33	MD
Surr: Toluene-d8	97.8	72.8-122		%REC	173013	1	03/01/2013 05:36	MD
PERCENT MOISTURE D2216								
Percent Moisture	26.6	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-012

Client Sample ID: 13053-GP-2 18-19
 Collection Date: 2/22/2013 10:50:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	540	220		ug/Kg-dry	173049	50	03/01/2013 22:05	MD
Vinyl chloride	BRL	6.7		ug/Kg-dry	173013	1	03/01/2013 06:05	MD
Surr: 4-Bromofluorobenzene	89.1	63.8-133		%REC	173049	50	03/01/2013 22:05	MD
Surr: 4-Bromofluorobenzene	98.1	63.8-133		%REC	173013	1	03/01/2013 06:05	MD
Surr: Dibromofluoromethane	103	74.3-130		%REC	173049	50	03/01/2013 22:05	MD
Surr: Dibromofluoromethane	101	74.3-130		%REC	173013	1	03/01/2013 06:05	MD
Surr: Toluene-d8	94.9	72.8-122		%REC	173049	50	03/01/2013 22:05	MD
Surr: Toluene-d8	98.9	72.8-122		%REC	173013	1	03/01/2013 06:05	MD
PERCENT MOISTURE D2216								
Percent Moisture	14.3	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-013

Client Sample ID: 13053-GP-3 4-5
 Collection Date: 2/22/2013 11:10:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	BRL	4.5		ug/Kg-dry	173013	1	03/01/2013 06:33	MD
Vinyl chloride	BRL	9.0		ug/Kg-dry	173013	1	03/01/2013 06:33	MD
Surr: 4-Bromofluorobenzene	83.1	63.8-133		%REC	173013	1	03/01/2013 06:33	MD
Surr: Dibromofluoromethane	103	74.3-130		%REC	173013	1	03/01/2013 06:33	MD
Surr: Toluene-d8	92.4	72.8-122		%REC	173013	1	03/01/2013 06:33	MD
PERCENT MOISTURE D2216								
Percent Moisture	21.1	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-014

Client Sample ID: 13053-GP-3 7-8
 Collection Date: 2/22/2013 11:20:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	100	4.0		ug/Kg-dry	173013	1	03/01/2013 07:01	MD
Vinyl chloride	BRL	8.0		ug/Kg-dry	173013	1	03/01/2013 07:01	MD
Surr: 4-Bromofluorobenzene	94.2	63.8-133		%REC	173013	1	03/01/2013 07:01	MD
Surr: Dibromofluoromethane	100	74.3-130		%REC	173013	1	03/01/2013 07:01	MD
Surr: Toluene-d8	99.8	72.8-122		%REC	173013	1	03/01/2013 07:01	MD
PERCENT MOISTURE D2216								
Percent Moisture	15.9	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-015

Client Sample ID: 13053-GP-3-14-15
 Collection Date: 2/22/2013 11:25:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	380	230		ug/Kg-dry	173049	50	03/01/2013 23:30	MD
Vinyl chloride	BRL	8.0		ug/Kg-dry	173013	1	03/01/2013 07:29	MD
Surr: 4-Bromofluorobenzene	85.3	63.8-133		%REC	173049	50	03/01/2013 23:30	MD
Surr: 4-Bromofluorobenzene	99.9	63.8-133		%REC	173013	1	03/01/2013 07:29	MD
Surr: Dibromofluoromethane	101	74.3-130		%REC	173049	50	03/01/2013 23:30	MD
Surr: Dibromofluoromethane	101	74.3-130		%REC	173013	1	03/01/2013 07:29	MD
Surr: Toluene-d8	95	72.8-122		%REC	173049	50	03/01/2013 23:30	MD
Surr: Toluene-d8	99.1	72.8-122		%REC	173013	1	03/01/2013 07:29	MD
PERCENT MOISTURE D2216								
Percent Moisture	26.0	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-016

Client Sample ID: 13053-GP-3-17-18
 Collection Date: 2/22/2013 11:30:00 AM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	82	5.4		ug/Kg-dry	173013	1	03/01/2013 07:58	MD
Vinyl chloride	BRL	11		ug/Kg-dry	173013	1	03/01/2013 07:58	MD
Surr: 4-Bromofluorobenzene	98.1	63.8-133		%REC	173013	1	03/01/2013 07:58	MD
Surr: Dibromofluoromethane	105	74.3-130		%REC	173013	1	03/01/2013 07:58	MD
Surr: Toluene-d8	97.8	72.8-122		%REC	173013	1	03/01/2013 07:58	MD
PERCENT MOISTURE D2216								
Percent Moisture	30.6	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-017

Client Sample ID: 13053-GP-4-3-4
 Collection Date: 2/22/2013 12:00:00 PM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	1700	180		ug/Kg-dry	173049	50	03/02/2013 03:35	GK
Vinyl chloride	33	7.4		ug/Kg-dry	173013	1	03/01/2013 11:20	MD
Surr: 4-Bromofluorobenzene	96.6	63.8-133		%REC	173049	50	03/02/2013 03:35	GK
Surr: 4-Bromofluorobenzene	96.7	63.8-133		%REC	173013	1	03/01/2013 11:20	MD
Surr: Dibromofluoromethane	96.9	74.3-130		%REC	173049	50	03/02/2013 03:35	GK
Surr: Dibromofluoromethane	95.3	74.3-130		%REC	173013	1	03/01/2013 11:20	MD
Surr: Toluene-d8	103	72.8-122		%REC	173049	50	03/02/2013 03:35	GK
Surr: Toluene-d8	97	72.8-122		%REC	173013	1	03/01/2013 11:20	MD
PERCENT MOISTURE D2216								
Percent Moisture	10.8	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-018

Client Sample ID: 13053-GP-4-9-10
 Collection Date: 2/22/2013 12:05:00 PM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	BRL	5.9		ug/Kg-dry	173013	1	03/01/2013 11:48	MD
Vinyl chloride	BRL	12		ug/Kg-dry	173013	1	03/01/2013 11:48	MD
Surr: 4-Bromofluorobenzene	98.2	63.8-133		%REC	173013	1	03/01/2013 11:48	MD
Surr: Dibromofluoromethane	105	74.3-130		%REC	173013	1	03/01/2013 11:48	MD
Surr: Toluene-d8	99.4	72.8-122		%REC	173013	1	03/01/2013 11:48	MD
PERCENT MOISTURE D2216								
Percent Moisture	19.2	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-019

Client Sample ID: 13053-GP-4-14-15
 Collection Date: 2/22/2013 12:15:00 PM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	BRL	5.1		ug/Kg-dry	173013	1	03/01/2013 12:17	MD
Vinyl chloride	BRL	10		ug/Kg-dry	173013	1	03/01/2013 12:17	MD
Surr: 4-Bromofluorobenzene	96.3	63.8-133		%REC	173013	1	03/01/2013 12:17	MD
Surr: Dibromofluoromethane	98.6	74.3-130		%REC	173013	1	03/01/2013 12:17	MD
Surr: Toluene-d8	99.8	72.8-122		%REC	173013	1	03/01/2013 12:17	MD
PERCENT MOISTURE D2216								
Percent Moisture	1.63	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-020

Client Sample ID: 13053-GP-4-17-18
 Collection Date: 2/22/2013 12:20:00 PM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	75	5.7		ug/Kg-dry	173013	1	03/01/2013 12:45	MD
Vinyl chloride	BRL	11		ug/Kg-dry	173013	1	03/01/2013 12:45	MD
Surr: 4-Bromofluorobenzene	96.7	63.8-133		%REC	173013	1	03/01/2013 12:45	MD
Surr: Dibromofluoromethane	97	74.3-130		%REC	173013	1	03/01/2013 12:45	MD
Surr: Toluene-d8	98.3	72.8-122		%REC	173013	1	03/01/2013 12:45	MD
PERCENT MOISTURE D2216								
Percent Moisture	13.1	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-037

Client Sample ID: TRIP BLANK
 Collection Date: 2/22/2013
 Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172953	1	02/27/2013 19:11	GK
Vinyl chloride	BRL	2.0		ug/L	172953	1	02/27/2013 19:11	GK
Surr: 4-Bromofluorobenzene	98.2	64.6-123		%REC	172953	1	02/27/2013 19:11	GK
Surr: Dibromofluoromethane	102	76.6-133		%REC	172953	1	02/27/2013 19:11	GK
Surr: Toluene-d8	101	77.8-120		%REC	172953	1	02/27/2013 19:11	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 5-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1302K13-038

Client Sample ID: 13053-EB
 Collection Date: 2/22/2013 4:00:00 PM
 Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172953	1	02/27/2013 19:40	GK
Vinyl chloride	BRL	2.0		ug/L	172953	1	02/27/2013 19:40	GK
Surr: 4-Bromofluorobenzene	99.4	64.6-123		%REC	172953	1	02/27/2013 19:40	GK
Surr: Dibromofluoromethane	101	76.6-133		%REC	172953	1	02/27/2013 19:40	GK
Surr: Toluene-d8	103	77.8-120		%REC	172953	1	02/27/2013 19:40	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Brown & Caldwell

Work Order Number 1302413

Checklist completed by [Signature] Date 2/25/13
Signature Date

Carrier name: FedEx ☐ UPS ☐ Courier ☒ Client ☐ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐

Container/Temp Blank temperature in compliance? ($4^{\circ}\text{C} \pm 2$)* Yes ☒ No ☐

Cooler #1 3.1 Cooler #2 3.2 Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☐ No ☒

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by M

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 172953

Sample ID: MB-172953	Client ID:					Units: ug/L	Prep Date: 02/27/2013	Run No: 239201			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 172953	Analysis Date: 02/27/2013	Seq No: 5008020			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
2-Butanone	BRL	50	0	0	0	0	0	0	0	0	
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0	
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0	
Acetone	BRL	50	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon disulfide	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	10	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	10	0	0	0	0	0	0	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 172953

Sample ID: MB-172953	Client ID:					Units: ug/L	Prep Date: 02/27/2013	Run No: 239201			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS	SW8260B					BatchID: 172953	Analysis Date: 02/27/2013	Seq No: 5008020		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Freon-113	BRL	10	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0	
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Styrene	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	50.38	0	50	0	101	64.6	123	0	0	0	
Surr: Dibromofluoromethane	49.56	0	50	0	99.1	76.6	133	0	0	0	
Surr: Toluene-d8	50.83	0	50	0	102	77.8	120	0	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT**BatchID: 172953**

Sample ID: LCS-172953	Client ID:					Units: ug/L	Prep Date: 02/27/2013	Run No: 239201			
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 172953	Analysis Date: 02/27/2013	Seq No: 5008021			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	54.35	5.0	50	0	109	61.1	142	0	0	0	
Benzene	47.15	5.0	50	0	94.3	73.5	130	0	0	0	
Chlorobenzene	44.97	5.0	50	0	89.9	72.4	123	0	0	0	
Toluene	46.04	5.0	50	0	92.1	73.6	130	0	0	0	
Trichloroethene	45.12	5.0	50	0	90.2	70	135	0	0	0	
Surr: 4-Bromofluorobenzene	50.61	0	50	0	101	64.6	123	0	0	0	
Surr: Dibromofluoromethane	50.92	0	50	0	102	76.6	133	0	0	0	
Surr: Toluene-d8	51.21	0	50	0	102	77.8	120	0	0	0	

Sample ID: 1302K54-001AMS	Client ID:				Units: ug/L	Prep Date: 02/27/2013	Run No: 239201				
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 172953	Analysis Date: 02/27/2013	Seq No: 5008128				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	54.44	5.0	50	0	109	60	168	0	0	0	
Benzene	47.53	5.0	50	0	95.1	66.6	148	0	0	0	
Chlorobenzene	45.43	5.0	50	0	90.9	71.9	135	0	0	0	
Toluene	164.6	5.0	50	119.7	89.7	68	149	0	0	0	
Trichloroethene	45.21	5.0	50	0	90.4	71.1	154	0	0	0	
Surr: Dibromofluoromethane	51.96	0	50	0	104	76.6	133	0	0	0	
Surr: Toluene-d8	51.37	0	50	0	103	77.8	120	0	0	0	

Sample ID: 1302K54-001AMSD	Client ID:				Units: ug/L	Prep Date: 02/27/2013	Run No: 239201				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 172953	Analysis Date: 02/27/2013	Seq No: 5008139				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	53.52	5.0	50	0	107	60	168	54.44	1.7	18.6	
Benzene	46.49	5.0	50	0	93	66.6	148	47.53	2.21	20	
Chlorobenzene	43.79	5.0	50	0	87.6	71.9	135	45.43	3.68	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 172953

Sample ID: 1302K54-001AMSD	Client ID:					Units: ug/L	Prep Date: 02/27/2013	Run No: 239201			
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS	SW8260B	BatchID: 172953				Analysis Date: 02/27/2013	Seq No: 5008139			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Toluene	160.2	5.0	50	119.7	80.9	68	149	164.6	2.72	20	
Trichloroethene	43.45	5.0	50	0	86.9	71.1	154	45.21	3.97	20	
Surr: Dibromofluoromethane	52.14	0	50	0	104	76.6	133	51.96	0	0	
Surr: Toluene-d8	52.22	0	50	0	104	77.8	120	51.37	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 172966

Sample ID: MB-172966		Client ID:				Units: ug/Kg		Prep Date: 02/27/2013		Run No: 239211	
SampleType: MBLK		TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 172966		Analysis Date: 02/27/2013		Seq No: 5008337	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
2-Butanone	BRL	50	0	0	0	0	0	0	0	0	
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0	
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0	
Acetone	BRL	100	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon disulfide	BRL	10	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	10	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	10	0	0	0	0	0	0	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT**BatchID: 172966**

Sample ID: MB-172966	Client ID:					Units: ug/Kg	Prep Date: 02/27/2013	Run No: 239211			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS	SW8260B	BatchID: 172966				Analysis Date: 02/27/2013	Seq No: 5008337			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Freon-113	BRL	10	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0	
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Styrene	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	10	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	47.49	0	50	0	95	63.8	133	0	0	0	
Surr: Dibromofluoromethane	47.90	0	50	0	95.8	74.3	130	0	0	0	
Surr: Toluene-d8	49.45	0	50	0	98.9	72.8	122	0	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT**BatchID: 172966**

Sample ID: LCS-172966	Client ID:					Units: ug/Kg	Prep Date: 02/27/2013	Run No: 239211			
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 172966	Analysis Date: 02/27/2013	Seq No: 5008339			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	47.77	5.0	50	0	95.5	63.1	140	0	0	0	
Benzene	52.89	5.0	50	0	106	70.2	130	0	0	0	
Chlorobenzene	49.32	5.0	50	0	98.6	70	126	0	0	0	
Toluene	54.12	5.0	50	1.030	106	70.5	130	0	0	0	
Trichloroethene	52.80	5.0	50	0	106	70	135	0	0	0	
Surr: 4-Bromofluorobenzene	46.29	0	50	0	92.6	63.8	133	0	0	0	
Surr: Dibromofluoromethane	46.14	0	50	0	92.3	74.3	130	0	0	0	
Surr: Toluene-d8	49.51	0	50	0	99	72.8	122	0	0	0	

Sample ID: 1302L05-011AMS	Client ID:				Units: ug/Kg-dry	Prep Date: 02/27/2013	Run No: 239270				
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 172966	Analysis Date: 02/28/2013	Seq No: 5009573				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	56.11	6.4	63.95	0	87.7	58.8	157	0	0	0	
Benzene	62.04	6.4	63.95	0	97	66.3	139	0	0	0	
Chlorobenzene	58.31	6.4	63.95	0	91.2	67.8	131	0	0	0	
Toluene	61.52	6.4	63.95	0.9351	94.7	66	138	0	0	0	
Trichloroethene	59.66	6.4	63.95	0	93.3	72.5	141	0	0	0	
Surr: 4-Bromofluorobenzene	62.09	0	63.95	0	97.1	63.8	133	0	0	0	
Surr: Dibromofluoromethane	62.04	0	63.95	0	97	74.3	130	0	0	0	
Surr: Toluene-d8	63.99	0	63.95	0	100	72.8	122	0	0	0	

Sample ID: 1302L05-011AMSD	Client ID:					Units: ug/Kg-dry	Prep Date: 02/27/2013	Run No: 239270			
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 172966	Analysis Date: 02/28/2013	Seq No: 5009575			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	55.38	6.4	63.95	0	86.6	58.8	157	56.11	1.31	21.9	
Benzene	64.35	6.4	63.95	0	101	66.3	139	62.04	3.64	22.3	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 172966

Sample ID: 1302L05-011AMSD	Client ID:					Units: ug/Kg-dry	Prep Date: 02/27/2013	Run No: 239270			
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 172966	Analysis Date: 02/28/2013	Seq No: 5009575			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	58.13	6.4	63.95	0	90.9	67.8	131	58.31	0.308	17.3	
Toluene	62.84	6.4	63.95	0.9351	96.8	66	138	61.52	2.12	18.1	
Trichloroethene	62.06	6.4	63.95	0	97	72.5	141	59.66	3.93	18.7	
Surr: 4-Bromofluorobenzene	63.09	0	63.95	0	98.7	63.8	133	62.09	0	0	
Surr: Dibromofluoromethane	63.97	0	63.95	0	100	74.3	130	62.04	0	0	
Surr: Toluene-d8	64.13	0	63.95	0	100	72.8	122	63.99	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 173013

Sample ID: MB-173013		Client ID:				Units: ug/Kg		Prep Date: 02/28/2013		Run No: 239311	
SampleType: MBLK		TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 173013		Analysis Date: 02/28/2013		Seq No: 5009716	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
2-Butanone	BRL	50	0	0	0	0	0	0	0	0	
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0	
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0	
Acetone	BRL	100	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon disulfide	BRL	10	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	10	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	10	0	0	0	0	0	0	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT**BatchID: 173013**

Sample ID: MB-173013		Client ID:				Units: ug/Kg		Prep Date: 02/28/2013		Run No: 239311	
SampleType: MBLK		TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 173013		Analysis Date: 02/28/2013		Seq No: 5009716	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Freon-113	BRL	10	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0	
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Styrene	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	10	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	46.96	0	50	0	93.9	63.8	133	0	0	0	
Surr: Dibromofluoromethane	48.73	0	50	0	97.5	74.3	130	0	0	0	
Surr: Toluene-d8	46.76	0	50	0	93.5	72.8	122	0	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT**BatchID: 173013**

Sample ID: LCS-173013	Client ID:					Units: ug/Kg	Prep Date: 02/28/2013	Run No: 239311			
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 173013	Analysis Date: 02/28/2013	Seq No: 5009713			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	44.00	5.0	50	0	88	63.1	140	0	0	0	
Benzene	46.79	5.0	50	0	93.6	70.2	130	0	0	0	
Chlorobenzene	46.93	5.0	50	0	93.9	70	126	0	0	0	
Toluene	45.34	5.0	50	0	90.7	70.5	130	0	0	0	
Trichloroethene	45.41	5.0	50	0	90.8	70	135	0	0	0	
Surr: 4-Bromofluorobenzene	48.95	0	50	0	97.9	63.8	133	0	0	0	
Surr: Dibromofluoromethane	48.00	0	50	0	96	74.3	130	0	0	0	
Surr: Toluene-d8	48.20	0	50	0	96.4	72.8	122	0	0	0	

Sample ID: 1302K15-001AMS	Client ID:				Units: ug/Kg-dry	Prep Date: 02/28/2013	Run No: 239380				
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 173013	Analysis Date: 03/01/2013	Seq No: 5011070				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	52.64	6.2	61.81	0	85.2	58.8	157	0	0	0	
Benzene	57.84	6.2	61.81	0	93.6	66.3	139	0	0	0	
Chlorobenzene	53.00	6.2	61.81	0	85.7	67.8	131	0	0	0	
Toluene	58.21	6.2	61.81	0	94.2	66	138	0	0	0	
Trichloroethene	56.47	6.2	61.81	0	91.4	72.5	141	0	0	0	
Surr: 4-Bromofluorobenzene	59.92	0	61.81	0	96.9	63.8	133	0	0	0	
Surr: Dibromofluoromethane	60.39	0	61.81	0	97.7	74.3	130	0	0	0	
Surr: Toluene-d8	62.07	0	61.81	0	100	72.8	122	0	0	0	

Sample ID: 1302K15-001AMSD	Client ID:				Units: ug/Kg-dry	Prep Date: 02/28/2013	Run No: 239380				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 173013	Analysis Date: 03/01/2013	Seq No: 5011071				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	47.69	6.2	61.81	0	77.2	58.8	157	52.64	9.86	21.9	
Benzene	53.18	6.2	61.81	0	86	66.3	139	57.84	8.4	22.3	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 173013

Sample ID: 1302K15-001AMSD	Client ID:				Units: ug/Kg-dry	Prep Date: 02/28/2013	Run No: 239380				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 173013	Analysis Date: 03/01/2013	Seq No: 5011071				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chlorobenzene	50.99	6.2	61.81	0	82.5	67.8	131	53.00	3.85	17.3	
Toluene	52.71	6.2	61.81	0	85.3	66	138	58.21	9.92	18.1	
Trichloroethene	51.76	6.2	61.81	0	83.7	72.5	141	56.47	8.7	18.7	
Surr: 4-Bromofluorobenzene	61.67	0	61.81	0	99.8	63.8	133	59.92	0	0	
Surr: Dibromofluoromethane	60.46	0	61.81	0	97.8	74.3	130	60.39	0	0	
Surr: Toluene-d8	61.23	0	61.81	0	99.1	72.8	122	62.07	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 173049

Sample ID: MB-173049	Client ID:					Units: ug/Kg	Prep Date: 03/01/2013	Run No: 239374			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 173049	Analysis Date: 03/01/2013	Seq No: 5011557			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	250	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	250	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	250	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	250	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	250	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	250	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	250	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	250	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	250	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	250	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	250	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	250	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	250	0	0	0	0	0	0	0	0	
2-Butanone	BRL	2500	0	0	0	0	0	0	0	0	
2-Hexanone	BRL	500	0	0	0	0	0	0	0	0	
4-Methyl-2-pentanone	BRL	500	0	0	0	0	0	0	0	0	
Acetone	BRL	5000	0	0	0	0	0	0	0	0	
Benzene	BRL	250	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	250	0	0	0	0	0	0	0	0	
Bromoform	BRL	250	0	0	0	0	0	0	0	0	
Bromomethane	BRL	250	0	0	0	0	0	0	0	0	
Carbon disulfide	BRL	500	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	250	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	250	0	0	0	0	0	0	0	0	
Chloroethane	BRL	500	0	0	0	0	0	0	0	0	
Chloroform	BRL	250	0	0	0	0	0	0	0	0	
Chloromethane	BRL	500	0	0	0	0	0	0	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 173049

Sample ID: MB-173049	Client ID:					Units: ug/Kg	Prep Date: 03/01/2013	Run No: 239374			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS	SW8260B	BatchID: 173049				Analysis Date: 03/01/2013	Seq No: 5011557			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	250	0	0	0	0	0	0	0	0	
cis-1,3-Dichloropropene	BRL	250	0	0	0	0	0	0	0	0	
Cyclohexane	BRL	250	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	250	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	500	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	250	0	0	0	0	0	0	0	0	
Freon-113	BRL	500	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	250	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	250	0	0	0	0	0	0	0	0	
Methyl acetate	BRL	250	0	0	0	0	0	0	0	0	
Methyl tert-butyl ether	BRL	250	0	0	0	0	0	0	0	0	
Methylcyclohexane	BRL	250	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	250	0	0	0	0	0	0	0	0	
o-Xylene	BRL	250	0	0	0	0	0	0	0	0	
Styrene	BRL	250	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	250	0	0	0	0	0	0	0	0	
Toluene	BRL	250	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	250	0	0	0	0	0	0	0	0	
trans-1,3-Dichloropropene	BRL	250	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	250	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	250	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	500	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	2468	0	2500	0	98.7	63.8	133	0	0	0	
Surr: Dibromofluoromethane	2514	0	2500	0	101	74.3	130	0	0	0	
Surr: Toluene-d8	2579	0	2500	0	103	72.8	122	0	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT**BatchID: 173049**

Sample ID: LCS-173049	Client ID:					Units: ug/Kg	Prep Date: 03/01/2013	Run No: 239374			
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 173049	Analysis Date: 03/01/2013	Seq No: 5011556			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	3356	250	2500	0	134	63.1	140	0	0	0	
Benzene	2490	250	2500	0	99.6	70.2	130	0	0	0	
Chlorobenzene	2289	250	2500	0	91.6	70	126	0	0	0	
Toluene	2408	250	2500	0	96.3	70.5	130	0	0	0	
Trichloroethene	2450	250	2500	0	98	70	135	0	0	0	
Surr: 4-Bromofluorobenzene	2485	0	2500	0	99.4	63.8	133	0	0	0	
Surr: Dibromofluoromethane	2608	0	2500	0	104	74.3	130	0	0	0	
Surr: Toluene-d8	2626	0	2500	0	105	72.8	122	0	0	0	

Sample ID: 1302K13-017AMS	Client ID: 13053-GP-4-3-4	Units: ug/Kg-dry			Prep Date: 03/01/2013	Run No: 239374					
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 173049			Analysis Date: 03/02/2013	Seq No: 5011561					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	2210	180	1778	0	124	58.8	157	0	0	0	
Benzene	1824	180	1778	0	103	66.3	139	0	0	0	
Chlorobenzene	1680	180	1778	0	94.5	67.8	131	0	0	0	
Toluene	1887	180	1778	126.6	99	66	138	0	0	0	
Trichloroethene	1762	180	1778	66.12	95.4	72.5	141	0	0	0	
Surr: 4-Bromofluorobenzene	1752	0	1778	0	98.6	63.8	133	0	0	0	
Surr: Dibromofluoromethane	1808	0	1778	0	102	74.3	130	0	0	0	
Surr: Toluene-d8	1837	0	1778	0	103	72.8	122	0	0	0	

Sample ID: 1302K13-017AMSD	Client ID: 13053-GP-4-3-4	Units: ug/Kg-dry	Prep Date: 03/01/2013	Run No: 239374							
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 173049	Analysis Date: 03/02/2013	Seq No: 5011562							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	2048	180	1778	0	115	58.8	157	2210	7.61	21.9	
Benzene	1771	180	1778	0	99.6	66.3	139	1824	2.99	22.3	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 173049

Sample ID: 1302K13-017AMSD	Client ID: 13053-GP-4-3-4	Units: ug/Kg-dry	Prep Date: 03/01/2013	Run No: 239374							
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 173049	Analysis Date: 03/02/2013	Seq No: 5011562							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chlorobenzene	1653	180	1778	0	93	67.8	131	1680	1.62	17.3	
Toluene	1845	180	1778	126.6	96.7	66	138	1887	2.25	18.1	
Trichloroethene	1687	180	1778	66.12	91.2	72.5	141	1762	4.35	18.7	
Surr: 4-Bromofluorobenzene	1747	0	1778	0	98.3	63.8	133	1752	0	0	
Surr: Dibromofluoromethane	1791	0	1778	0	101	74.3	130	1808	0	0	
Surr: Toluene-d8	1855	0	1778	0	104	72.8	122	1837	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

March 12, 2013

Sarah Jones
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 394-2997
FAX: (770) 396-9495

RE: MacGregor Golf

Dear Sarah Jones:

Order No: 1303324

Analytical Environmental Services, Inc. received 2 samples on 2/25/2013 3:14:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
- AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1303324

Date:

Page

of 2

COMP Brown and Caldwell		ADDRESS: 990 Hammond Drive Suite 400, Atlanta, GA 30328		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers	
PHONE:		FAX:															
SAMPLER George Skala IV		SIGNATURE: <i>[Signature]</i>												REMARKS			
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)										
1	13053-B4-3-4	2-22-13	0855	X		So	X	X									
2	13053-B4-7-8		0905	X		So	X	X									
3	13053-B4-10-11		0915	X		So	X	X									
4	13053-B4-15-16		0920	X		So	X	X									
5	13053-GP-1-4-5		0940	X		So	X	X									
6	13053-GP-1-8-6		0950	X		So	X	X									
7	13053-GP-1-14-15		0955	X		So	X	X									
8	13053-GP-1-19-20		091000	X		So	X	X									
9	13053-GP-2-4-5		1025	X		So	X	X									
10	13053-GP-2-7-8		1030	X		So	X	X									
11	13053-GP-2-14-15		1040	X		So	X	X									
12	13053-GP-2-18-19		1050	X		So	X	X									
13	13053-GP-3-4-5		1110	X		So	X	X									
14	13053-GP-3-7-8		1120	X		So	X	X									
RELINQUISHED BY		DATE/TIME	RECEIVED BY		DATE/TIME	PROJECT INFORMATION										RECEIPT	
1: <i>[Signature]</i>		2-25-13 1453	1: <i>[Signature]</i>		2-25-13 1453	PROJECT NAME: MacGregor Golf										Total # of Containers	
2: <i>[Signature]</i>		2-25-13 1514	2: <i>[Signature]</i>		2/25/13 3:14	PROJECT #:										<input checked="" type="radio"/> Turnaround Time Request <input type="radio"/> Standard 5 Business Days <input type="radio"/> 2 Business Day Rush <input type="radio"/> Next Business Day Rush <input type="radio"/> Same Day Rush (auth req.) <input type="radio"/> Other	
3:			3:			SITE ADDRESS: 1601 S Slappey Blvd Albany, GA											
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD		SEND REPORT TO: Tberryman@brwnncald.com										STATE PROGRAM (if any):			
		OUT / / VIA:		INVOICE TO:										E-mail? <input checked="" type="radio"/> N; Fax? <input checked="" type="radio"/> Y / N			
		IN / / VIA:		(IF DIFFERENT FROM ABOVE)										DATA PACKAGE: I <input checked="" type="radio"/> II <input type="radio"/> III <input type="radio"/> IV			
		CLIENT FedEx UPS MAIL <input checked="" type="radio"/> COURIER		QUOTE #:										PO#:			
		GREYHOUND OTHER															

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1302413

Date:

Page 2 of 3

COMP		ADDRESS:		ANALYSIS REQUESTED												Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers
Brown and Caldwell		990 Hammond Drive Ste 400, Atlanta, GA																
PHONE:		FAX:																
SAMPLED BY: <i>W. H. H. H.</i>		SIGNATURE: <i>[Signature]</i>														REMARKS		
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)											
							H+I											
1	13053-GP-3-14-15	2/22/2013	1125	x		GW	X	X									3	
2	13053-GP-3-17-18	2/22/2013	1130	x		GW	X	X									3	
3	13053-GP-4-3-4	2/22/2013	1200	x		GW	X	X									3	
4	13053-GP-4-9-10	2/22/2013	1205	x		GW	X	X									3	
5	13053-GP-4-14-15	2/22/2013	1215	x		GW	X	X									3	
6	13053-GP-4-17-18	2/22/2013	1220	x		GW	X	X									3	
7	13053-GP-5-4-5	2/22/2013	1330	x		GW	X	X								Hold	3	
8	13053-GP-5-7-8	2/22/2013	1340	x		GW	X	X								Hold	3	
9	13053-GP-5-12-13	2/22/2013	1350	x		GW	X	X								Hold	3	
10	13053-GP-5-19-20	2/22/2013	1355	x		GW	X	X								Hold	3	
11	13053-GP-6-2-3	2/22/2013	1400	x		GW	X	X								Hold	3	
12	13053-GP-6-8-9	2/22/2013	1405	x		GW	X	X								Hold	3	
13	13053-GP-6-14-15	2/22/2013	1410	x		GW	X	X								Hold	3	
14	13053-GP-6-19-20	2/22/2013	1415	x		GW	X	X								Hold	3	

RELINQUISHED BY		DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION		RECEIPT	
1:	<i>[Signature]</i>	2-25-13 1453	1:	<i>[Signature]</i>	2-25-13 1453	PROJECT NAME:	Total # of Containers	
2:	<i>[Signature]</i>	2-25-13 1514	2:	<i>[Signature]</i>	2/25/13 3:14	PROJECT #:	Turnaround Time Request	
3:			3:			SITE ADDRESS: Albany	<input checked="" type="radio"/> Standard 5 Business Days	
						SEND REPORT TO: Tberryman@brwncauld.com	<input type="radio"/> 2 Business Day Rush	
SPECIAL INSTRUCTIONS/COMMENTS:						INVOICE TO: (IF DIFFERENT FROM ABOVE)	<input type="radio"/> Next Business Day Rush	
							<input type="radio"/> Same Day Rush (auth req.)	
						SHIPMENT METHOD	<input type="radio"/> Other	
						OUT / / VIA:	STATE PROGRAM (if any):	
						IN / / VIA:	E-mail <input checked="" type="radio"/> / N; Fax? <input checked="" type="radio"/> / N	
						CLIENT FedEx UPS MAIL <input checked="" type="radio"/> COURIER	DATA PACKAGE: I <input checked="" type="radio"/> II <input type="radio"/> III <input type="radio"/> IV	
						GREYHOUND OTHER		

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 130-2408-2

Date: _____

Page 3 of 3

COMP		ADDRESS:		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers		
Brown and Caldwell		990 Hammond Drive Ste 400, Atlanta, GA																
PHONE:		FAX:												REMARKS				
SAMPLED BY: <u>MacGregor</u>		SIGNATURE: <u>[Signature]</u>																
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	H+I	Vinyl Chloride	VOC	Svoc	Metals	PRESERVATION (See codes)						
1	13053-GP-7-3-4	2/22/2013	1430	x		GW	X	X										Hold
2	13053-GP-7-9-10	2/22/2013	1435	x		GW	X	X									Hold	3
3	13053-GP-7-11-12	2/22/2013	1445	x		GW	X	X									Hold	3
4	13053-GP-7-17-18	2/22/2013	1450	x		GW	X	X									Hold	3
5	13053-GP-8-3-4	2/22/2013	1505	x		GW	X	X									Hold	3
6	13053-GP-8-9-10	2/22/2013	1510	x		GW	X	X									Hold	3
7	13053-GP-8-14-15	2/22/2013	1520	x		GW	X	X									Hold	3
8	13053-GP-8-19-20	2/22/2013	1525	x		GW	X	X									Hold	3
9	Trip Blanks	2/22/2013				W	X	X										3
10	13053-EB	2/22/2013	1600	x		W	X	X										3
11	13053-T-Clip Soil	2/22/2013	1615		x	So			X	X	X							3
12	13053-T-Clip Water	2/23/2013	1630		x	GW			x	x	x						hold	3
13																	hold	
14																		

RELINQUISHED BY		DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION		RECEIPT	
1:	<u>[Signature]</u>	2-25-13 1453	1:	<u>[Signature]</u>	2-25-13 1453	PROJECT NAME:	MacGregor	Total # of Containers
2:	<u>[Signature]</u>	2-25-13 1514	2:	<u>[Signature]</u>	2/25/13 3:14	PROJECT #:		Turnaround Time Request <input checked="" type="radio"/> Standard 5 Business Days <input type="radio"/> 2 Business Day Rush <input type="radio"/> Next Business Day Rush <input type="radio"/> Same Day Rush (auth req.) <input type="radio"/> Other _____
3:			3:			SITE ADDRESS:	Albany	
SPECIAL INSTRUCTIONS/COMMENTS:			SHIPMENT METHOD			SEND REPORT TO: <u>Tberryman@brwncaid.com</u>		STATE PROGRAM (if any): _____ E-mail? <input checked="" type="radio"/> Y <input type="radio"/> N; Fax? <input type="radio"/> Y <input type="radio"/> N DATA PACKAGE: <input checked="" type="radio"/> I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV
			OUT / / VIA: IN / / VIA: CLIENT FedEx UPS MAIL <u>COURIER</u> GREYHOUND OTHER _____			INVOICE TO: (IF DIFFERENT FROM ABOVE)		
						QUOTE #:		PO#:

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
 SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Client: BROWN AND CALDWELL**Project:** MacGregor Golf**Lab ID:** 1303324**Case Narrative**

Per Sarah Jones, pull "13053-GP-2-3" and "13053-GP-6-8-9" off hold from 1302K13 and analyze for cis-1,2-DCE and vinyl chloride at std turn.

Analytical Environmental Services, Inc

Date: 12-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1303324-001

Client Sample ID: 13053-GP-6-2-3
 Collection Date: 2/22/2013 2:00:00 PM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	BRL	4.7		ug/Kg-dry	173171	1	03/07/2013 00:44	MD
Vinyl chloride	BRL	9.5		ug/Kg-dry	173171	1	03/07/2013 00:44	MD
Surr: 4-Bromofluorobenzene	93.9	63.8-133		%REC	173171	1	03/07/2013 00:44	MD
Surr: Dibromofluoromethane	91.6	74.3-130		%REC	173171	1	03/07/2013 00:44	MD
Surr: Toluene-d8	98.4	72.8-122		%REC	173171	1	03/07/2013 00:44	MD
PERCENT MOISTURE D2216								
Percent Moisture	12.8	0		wt%	R239835	1	03/11/2013 11:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 12-Mar-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1303324-002

Client Sample ID: 13053-GP-6-8-9
 Collection Date: 2/22/2013 2:05:00 PM
 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5035)				
cis-1,2-Dichloroethene	76	4.0		ug/Kg-dry	173171	1	03/07/2013 00:15	MD
Vinyl chloride	BRL	8.0		ug/Kg-dry	173171	1	03/07/2013 00:15	MD
Surr: 4-Bromofluorobenzene	96.8	63.8-133		%REC	173171	1	03/07/2013 00:15	MD
Surr: Dibromofluoromethane	97.5	74.3-130		%REC	173171	1	03/07/2013 00:15	MD
Surr: Toluene-d8	101	72.8-122		%REC	173171	1	03/07/2013 00:15	MD
PERCENT MOISTURE D2216								
Percent Moisture	22.0	0		wt%	R239835	1	03/11/2013 11:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

1303324

Client Brown & Caldwell

Work Order Number 7508413 2

Checklist completed by [Signature] Date 2/25/13

Carrier name: FedEx ☐ UPS ☐ Courier ☒ Client ☐ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ☒ No ☐

Cooler #1 3.1 Cooler #2 3.2 Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☐ No ☒

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Sample Condition: Good ☒ Adjusted? ☐ Other(Explain) ☐ Checked by MS

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Client: BROWN AND CALDWELL
Project: MacGregor Golf
Lab Order: 1303324

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1303324-001A	13053-GP-6-2-3	2/22/2013 2:00:00PM	Soil	TCL VOLATILE ORGANICS		03/06/2013	03/07/2013
1303324-001B	13053-GP-6-2-3	2/22/2013 2:00:00PM	Soil	PERCENT MOISTURE			03/11/2013
1303324-002A	13053-GP-6-8-9	2/22/2013 2:05:00PM	Soil	TCL VOLATILE ORGANICS		03/06/2013	03/07/2013
1303324-002B	13053-GP-6-8-9	2/22/2013 2:05:00PM	Soil	PERCENT MOISTURE			03/11/2013

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1303324

ANALYTICAL QC SUMMARY REPORT

BatchID: 173171

Sample ID: MB-173171	Client ID:					Units: ug/Kg	Prep Date: 03/06/2013	Run No: 239574			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 173171	Analysis Date: 03/06/2013	Seq No: 5014840			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
2-Butanone	BRL	50	0	0	0	0	0	0	0	0	
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0	
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0	
Acetone	BRL	100	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon disulfide	BRL	10	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	10	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	10	0	0	0	0	0	0	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1303324

ANALYTICAL QC SUMMARY REPORT

BatchID: 173171

Sample ID: MB-173171		Client ID:				Units: ug/Kg		Prep Date: 03/06/2013		Run No: 239574	
SampleType: MBLK		TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 173171		Analysis Date: 03/06/2013		Seq No: 5014840	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Freon-113	BRL	10	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0	
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Styrene	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	10	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	46.91	0	50	0	93.8	63.8	133	0	0	0	
Surr: Dibromofluoromethane	47.97	0	50	0	95.9	74.3	130	0	0	0	
Surr: Toluene-d8	49.71	0	50	0	99.4	72.8	122	0	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1303324

ANALYTICAL QC SUMMARY REPORT**BatchID: 173171**

Sample ID: LCS-173171	Client ID:					Units: ug/Kg	Prep Date: 03/06/2013	Run No: 239574			
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 173171	Analysis Date: 03/06/2013	Seq No: 5014838			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	59.98	5.0	50	0	120	63.1	140	0	0	0	
Benzene	54.16	5.0	50	0	108	70.2	130	0	0	0	
Chlorobenzene	58.60	5.0	50	0	117	70	126	0	0	0	
Toluene	54.40	5.0	50	0	109	70.5	130	0	0	0	
Trichloroethene	58.20	5.0	50	0	116	70	135	0	0	0	
Surr: 4-Bromofluorobenzene	49.32	0	50	0	98.6	63.8	133	0	0	0	
Surr: Dibromofluoromethane	49.84	0	50	0	99.7	74.3	130	0	0	0	
Surr: Toluene-d8	49.43	0	50	0	98.9	72.8	122	0	0	0	

Sample ID: 1303188-010AMS	Client ID:					Units: ug/Kg-dry	Prep Date: 03/06/2013	Run No: 239574			
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 173171	Analysis Date: 03/06/2013	Seq No: 5016371			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	57.65	6.3	62.58	0	92.1	58.8	157	0	0	0	
Benzene	57.88	6.3	62.58	0	92.5	66.3	139	0	0	0	
Chlorobenzene	63.78	6.3	62.58	0	102	67.8	131	0	0	0	
Toluene	58.67	6.3	62.58	0	93.8	66	138	0	0	0	
Trichloroethene	58.81	6.3	62.58	0	94	72.5	141	0	0	0	
Surr: 4-Bromofluorobenzene	59.72	0	62.58	0	95.4	63.8	133	0	0	0	
Surr: Dibromofluoromethane	56.76	0	62.58	0	90.7	74.3	130	0	0	0	
Surr: Toluene-d8	61.93	0	62.58	0	99	72.8	122	0	0	0	

Sample ID: 1303188-010AMSD	Client ID:					Units: ug/Kg-dry	Prep Date: 03/06/2013	Run No: 239574			
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 173171	Analysis Date: 03/06/2013	Seq No: 5016372			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	58.31	6.3	62.58	0	93.2	58.8	157	57.65	1.14	21.9	
Benzene	57.68	6.3	62.58	0	92.2	66.3	139	57.88	0.347	22.3	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1303324

ANALYTICAL QC SUMMARY REPORT

BatchID: 173171

Sample ID: 1303188-010AMSD	Client ID:				Units: ug/Kg-dry	Prep Date: 03/06/2013	Run No: 239574				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 173171	Analysis Date: 03/06/2013	Seq No: 5016372				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chlorobenzene	63.73	6.3	62.58	0	102	67.8	131	63.78	0.078	17.3	
Toluene	58.22	6.3	62.58	0	93	66	138	58.67	0.771	18.1	
Trichloroethene	58.80	6.3	62.58	0	94	72.5	141	58.81	0.021	18.7	
Surr: 4-Bromofluorobenzene	59.28	0	62.58	0	94.7	63.8	133	59.72	0	0	
Surr: Dibromofluoromethane	56.46	0	62.58	0	90.2	74.3	130	56.76	0	0	
Surr: Toluene-d8	62.13	0	62.58	0	99.3	72.8	122	61.93	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

May 13, 2013

Sarah Jones
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 394-2997
FAX: (770) 396-9495

RE: MacGregor Golf

Dear Sarah Jones:

Order No: 1305702

Analytical Environmental Services, Inc. received 3 samples on 5/9/2013 10:10:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1305702

Date: 5-8-13 Page 1 of 1

COMPANY: Brown & Caldwell		ADDRESS: 990 Hammond Dr ste 400 Atlanta GA, 30328		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers
PHONE:		FAX:		<div style="display: flex; flex-direction: column;"> <div>Total Chromium</div> <div>Method 6010B</div> <div>Dissolved Chromium</div> <div>Method 6010B</div> <div>Hexavalent Chromium</div> <div>SW 7196</div> </div>												
SAMPLED BY: Brian Steele		SIGNATURE: 		PRESERVATION (See codes)										REMARKS		
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	H+I	I	N	S+I	S/M+I	O	NA			
1	13128-spartan-mw-2	5-8-13	1435	X		GW	X	X	X						Same day Rush	3
2	13128-DUP	↓	1800	↓		GW	↓	↓	↓						standard TAT	3
3	13128-EB	↓	1500	↓		W	↓	↓	↓						standard TAT	3
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																

RELINQUISHED BY		DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION		RECEIPT	
1: Brian Steele		5-8-13 / 1800	1: [Signature]	5/9/13 10:10	PROJECT NAME: Macgregor		Total # of Containers	
2:			2:		PROJECT #: 143327		Turnaround Time Request	
3:			3:		SITE ADDRESS: Albany GA		Standard 5 Business Days	
					SEND REPORT TO: SJones@browncauld.com		2 Business Day Rush	
SPECIAL INSTRUCTIONS/COMMENTS:			SHIPMENT METHOD		INVOICE TO:		Next Business Day Rush	
Only 13128-spartan-mw-2 on same day rush TAT. DUP + EB on standard TAT			OUT / / VIA:		(IF DIFFERENT FROM ABOVE)		Same Day Rush (auth req.)	
* Short Hold times!!			IN / / VIA:		QUOTE #:		Other	
			CLIENT FedEx UPS MAIL COURIER		PO#:		STATE PROGRAM (if any):	
			GREYHOUND OTHER				E-mail? Y/N; Fax? Y/N	
							DATA PACKAGE: I (1) III IV	

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.

SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 13-May-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1305702-001

Client Sample ID: 13128-SPARTAN-MW-2
 Collection Date: 5/8/2013 2:35:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Chromium	BRL	0.0100		mg/L	175892	1	05/09/2013 14:00	MR
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG
Chromium, Hexavalent	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG
METALS, TOTAL SW6010C					(SW3010A)			
Chromium	BRL	0.0100		mg/L	175845	1	05/09/2013 15:52	MR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-May-13

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Lab ID: 1305702-002

Client Sample ID: 13128-DUP
Collection Date: 5/8/2013 6:00:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Chromium	BRL	0.0100		mg/L	175892	1	05/10/2013 15:07	MR
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG
Chromium, Hexavalent	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG
METALS, TOTAL SW6010C					(SW3010A)			
Chromium	BRL	0.0100		mg/L	175845	1	05/09/2013 21:41	MR

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 13-May-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1305702-003

Client Sample ID: 13128-EB
 Collection Date: 5/8/2013 3:00:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Chromium	BRL	0.0100		mg/L	175892	1	05/10/2013 15:10	MR
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG
Chromium, Hexavalent	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG
METALS, TOTAL SW6010C					(SW3010A)			
Chromium	BRL	0.0100		mg/L	175845	1	05/09/2013 21:45	MR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

CHAIN OF CUSTODY

Work Order: 1305702

AES TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

Date: 5-8-13 Page 1 of 1

COMPANY: Brown & Caldwell		ADDRESS: 990 Hammond Dr ste 400 Atlanta GA, 30328		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers					
PHONE:		FAX:		<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Chromium Method 6010B</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Dissolved Chromium Method 6010B</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Hexavalent Chromium SW 7196</div> </div>																	
SAMPLED BY: Brian Steele		SIGNATURE: 		PRESERVATION (See codes)										REMARKS							
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	DW-3	DW	WA												
1	13128-Spartan-MW-2	5-8-13	1435	X		GW	X	X	X											Same day Rush	3
2	13128-DUP	J	1800	J		GW	J	J	J											standard TAT	3
3	13128-EB	J	1500	J		W	J	J	J											standard TAT	3
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					

RELINQUISHED BY		DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION		RECEIPT	
1: Brian Steele		5-8-13 / 1800	1: Mj	5/9/13 10:10	PROJECT NAME: Macgregor		Total # of Containers	
2:			2:		PROJECT #: 143327		<input checked="" type="checkbox"/> Turnaround Time Request <input type="checkbox"/> Standard 5 Business Days <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush	
3:			3:		SITE ADDRESS: Albany GA		<input checked="" type="checkbox"/> Same Day Rush (auth req.) <input type="checkbox"/> Other	
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD		INVOICE TO:		STATE PROGRAM (if any):		
Only 13128-Spartan-MW-2 on same day rush TAT. DUP + EB on standard TAT		OUT / / VIA:		(IF DIFFERENT FROM ABOVE)		E-mail? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N; Fax? <input type="checkbox"/> Y / <input checked="" type="checkbox"/> N		
* Short Hold times!!		IN / / VIA:		QUOTE #:		DATA PACKAGE: I <input checked="" type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/>		
		CLIENT <input checked="" type="checkbox"/> FedEx UPS MAIL COURIER		PO#:				
		GREYHOUND OTHER						

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White Copy - Original; Yellow Copy - Client

Client: BROWN AND CALDWELL
Project: MacGregor Golf
Lab Order: 1305702

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1305702-001A	13128-SPARTAN-MW-2	5/8/2013 2:35:00PM	Groundwater	TOTAL METALS BY ICP		05/09/2013	05/09/2013
1305702-001B	13128-SPARTAN-MW-2	5/8/2013 2:35:00PM	Groundwater	DISSOLVED METALS BY ICP		05/09/2013	05/09/2013
1305702-001C	13128-SPARTAN-MW-2	5/8/2013 2:35:00PM	Groundwater	Hexavalent Chromium			05/09/2013
1305702-002A	13128-DUP	5/8/2013 6:00:00PM	Groundwater	TOTAL METALS BY ICP		05/09/2013	05/09/2013
1305702-002B	13128-DUP	5/8/2013 6:00:00PM	Groundwater	DISSOLVED METALS BY ICP		05/09/2013	05/10/2013
1305702-002C	13128-DUP	5/8/2013 6:00:00PM	Groundwater	Hexavalent Chromium			05/09/2013
1305702-003A	13128-EB	5/8/2013 3:00:00PM	Groundwater	TOTAL METALS BY ICP		05/09/2013	05/09/2013
1305702-003B	13128-EB	5/8/2013 3:00:00PM	Groundwater	DISSOLVED METALS BY ICP		05/09/2013	05/10/2013
1305702-003C	13128-EB	5/8/2013 3:00:00PM	Groundwater	Hexavalent Chromium			05/09/2013

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1305702

ANALYTICAL QC SUMMARY REPORT

BatchID: 175845

Sample ID: MB-175845	Client ID:					Units: mg/L	Prep Date: 05/09/2013	Run No: 243716			
SampleType: MBLK	TestCode: METALS, TOTAL	SW6010C				BatchID: 175845	Analysis Date: 05/09/2013	Seq No: 5102182			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	BRL	0.0100	0	0	0	0	0	0	0	0	
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Sample ID: LCS-175845	Client ID:					Units: mg/L	Prep Date: 05/09/2013	Run No: 243716			
SampleType: LCS	TestCode: METALS, TOTAL	SW6010C				BatchID: 175845	Analysis Date: 05/09/2013	Seq No: 5102181			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	1.064	0.0100	1.000	0	106	80	120	0	0	0	
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Sample ID: 1305383-003AMS	Client ID:					Units: mg/L	Prep Date: 05/09/2013	Run No: 243716			
SampleType: MS	TestCode: METALS, TOTAL	SW6010C				BatchID: 175845	Analysis Date: 05/09/2013	Seq No: 5102187			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	1.123	0.0100	1.000	0	112	75	125	0	0	0	
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Sample ID: 1305383-003AMSD	Client ID:					Units: mg/L	Prep Date: 05/09/2013	Run No: 243716			
SampleType: MSD	TestCode: METALS, TOTAL	SW6010C				BatchID: 175845	Analysis Date: 05/09/2013	Seq No: 5102188			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	1.091	0.0100	1.000	0	109	75	125	1.123	2.90	20	
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Sample ID: 1305702-001ADUP	Client ID: 13128-SPARTAN-MW-2	Units: mg/L			Prep Date: 05/09/2013	Run No: 243716					
SampleType: DUP	TestCode: METALS, TOTAL SW6010C	BatchID: 175845			Analysis Date: 05/09/2013	Seq No: 5102299					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	BRL	0.0100	0	0	0	0	0	0.005397	0	20	
----------	-----	--------	---	---	---	---	---	----------	---	----	--

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1305702

ANALYTICAL QC SUMMARY REPORT**BatchID: 175892**

Sample ID: MB-175892	Client ID:					Units: mg/L	Prep Date: 05/09/2013	Run No: 243713			
SampleType: MBLK	TestCode: METALS, DISSOLVED	SW6010C	BatchID: 175892				Analysis Date: 05/09/2013	Seq No: 5102116			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium BRL 0.0100 0 0 0 0 0 0 0 0 0

Sample ID: LCS-175892	Client ID:					Units: mg/L	Prep Date: 05/09/2013	Run No: 243713			
SampleType: LCS	TestCode: METALS, DISSOLVED	SW6010C	BatchID: 175892				Analysis Date: 05/09/2013	Seq No: 5102114			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9908 0.0100 1.000 0 99.1 80 120 0 0 0

Sample ID: 1305702-001BMS	Client ID: 13128-SPARTAN-MW-2	Units: mg/L			Prep Date: 05/09/2013	Run No: 243713					
SampleType: MS	TestCode: METALS, DISSOLVED SW6010C	BatchID: 175892			Analysis Date: 05/09/2013	Seq No: 5102118					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9141 0.0100 1.000 0.003860 91.0 75 125 0 0 0

Sample ID: 1305702-001BMSD	Client ID: 13128-SPARTAN-MW-2	Units: mg/L		Prep Date: 05/09/2013	Run No: 243713						
SampleType: MSD	TestCode: METALS, DISSOLVED SW6010C	BatchID: 175892		Analysis Date: 05/09/2013	Seq No: 5102119						
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9653 0.0100 1.000 0.003860 96.1 75 125 0.9141 5.45 20

Sample ID: 1305702-001BDUP	Client ID: 13128-SPARTAN-MW-2	Units: mg/L	Prep Date: 05/09/2013	Run No: 243713							
SampleType: DUP	TestCode: METALS, DISSOLVED SW6010C	BatchID: 175892	Analysis Date: 05/09/2013	Seq No: 5102124							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium BRL 0.0100 0 0 0 0 0 0 0.003860 0 20

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1305702

ANALYTICAL QC SUMMARY REPORT

BatchID: R243706

Sample ID: MB-R243706	Client ID:					Units: mg/L	Prep Date:	Run No: 243706			
SampleType: MBLK	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R243706	Analysis Date: 05/09/2013	Seq No: 5101876			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent BRL 0.0100 0 0 0 0 0 0 0 0 0

Sample ID: LCS-R243706	Client ID:					Units: mg/L	Prep Date:	Run No: 243706			
SampleType: LCS	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R243706	Analysis Date: 05/09/2013	Seq No: 5101877			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.5370 0.0100 0.5000 0 107 90 110 0 0 0

Sample ID: 1305702-001CMS	Client ID: 13128-SPARTAN-MW-2	Units: mg/L			Prep Date:			Run No: 243706			
SampleType: MS	TestCode: Hexavalent Chromium in Water	SW7196A	BatchID: R243706			Analysis Date: 05/09/2013			Seq No: 5101886		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.5324 0.0100 0.5000 0.009400 105 85 115 0 0 0

Sample ID: 1305702-001CMSD	Client ID: 13128-SPARTAN-MW-2	Units: mg/L			Prep Date:			Run No: 243706			
SampleType: MSD	TestCode: Hexavalent Chromium in Water SW7196A	BatchID: R243706			Analysis Date: 05/09/2013			Seq No: 5101888			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.5324 0.0100 0.5000 0.009400 105 85 115 0.5324 0 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

May 13, 2013

Sarah Jones
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 394-2997
FAX: (770) 396-9495

RE: MacGregor Golf

Dear Sarah Jones:

Order No: 1305845

Analytical Environmental Services, Inc. received 1 samples on 5/10/2013 10:25:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1305845

Date: 5-9-13 Page 1 of 1

COMPANY: Brown & Caldwell		ADDRESS: 990 Hammond Dr Ste 400 Atlanta GA 30328		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers		
PHONE:		FAX:		<div style="display: flex; flex-direction: column;"> <div>Total Chromium 6010 B</div> <div>Dissolved Chromium 6010 B</div> <div>Hexavalent Chromium JW 7196</div> </div>														
SAMPLED BY: Brian Steele		SIGNATURE: 		PRESERVATION (See codes)										REMARKS				
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	Hug	NA	PD									
1	13129-MW-26	5-9-13	1240	X		GW	X	X	X									short hold time
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION		RECEIPT	
1: Brian Steele	5-9-13/1300	1: my. Steele	10:15	PROJECT NAME:	Macgregor	Total # of Containers	
2:		2:		PROJECT #:	143327	Turnaround Time Request	
3:		3:		SITE ADDRESS:	Albany GA	<input type="radio"/> Standard 5 Business Days <input type="radio"/> 2 Business Day Rush <input type="radio"/> Next Business Day Rush <input checked="" type="radio"/> Same Day Rush (auth req.) <input type="radio"/> Other	
SPECIAL INSTRUCTIONS/COMMENTS: Short hold time.		SHIPMENT METHOD		INVOICE TO: (IF DIFFERENT FROM ABOVE)		STATE PROGRAM (if any):	
		OUT / / VIA: IN / / VIA: CLIENT <input checked="" type="radio"/> FedEx <input type="radio"/> UPS <input type="radio"/> MAIL <input type="radio"/> COURIER GREYHOUND OTHER				E-mail? <input checked="" type="radio"/> N; Fax? <input checked="" type="radio"/> Y DATA PACKAGE: I <input checked="" type="radio"/> II <input type="radio"/> III <input type="radio"/> IV	

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Client: BROWN AND CALDWELL**Project:** MacGregor Golf**Lab ID:** 1305845**Case Narrative**

Sample analyzed for both hex chromium and tri chromium per project requirements.

Analytical Environmental Services, Inc

Date: 13-May-13

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Lab ID: 1305845-001

Client Sample ID: 13129-MW-26
 Collection Date: 5/9/2013 12:40:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Chromium	0.0288	0.0100		mg/L	175892	1	05/10/2013 13:01	MR
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG
Chromium, Hexavalent	0.0307	0.0100		mg/L	R243706	1	05/10/2013 11:00	CG
METALS, TOTAL SW6010C					(SW3010A)			
Chromium	0.0337	0.0100		mg/L	175942	1	05/10/2013 14:28	MR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Brown & Calhoun

Work Order Number 1305845

Checklist completed by MJ Signature 5/10/13 Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☐ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ☒ No ☐

Cooler #1 3.1 Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☒ Yes ☐ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by MJ

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Quality Assurance\\Checklists Procedures Sign-Off Templates\\Checklists\\Sample Receipt Checklists\\Sample_Cooler_Receipt_Checklist

Client: BROWN AND CALDWELL
Project: MacGregor Golf
Lab Order: 1305845

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1305845-001A	13129-MW-26	5/9/2013 12:40:00PM	Groundwater	TOTAL METALS BY ICP		05/10/2013	05/10/2013
1305845-001B	13129-MW-26	5/9/2013 12:40:00PM	Groundwater	DISSOLVED METALS BY ICP		05/10/2013	05/10/2013
1305845-001C	13129-MW-26	5/9/2013 12:40:00PM	Groundwater	Hexavalent Chromium			05/09/2013
1305845-001C	13129-MW-26	5/9/2013 12:40:00PM	Groundwater	Hexavalent Chromium			05/10/2013

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1305845

ANALYTICAL QC SUMMARY REPORT

BatchID: 175892

Sample ID: MB-175892	Client ID:					Units: mg/L	Prep Date: 05/09/2013	Run No: 243713			
SampleType: MBLK	TestCode: METALS, DISSOLVED	SW6010C	BatchID: 175892				Analysis Date: 05/09/2013	Seq No: 5102116			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium BRL 0.0100 0 0 0 0 0 0 0 0 0

Sample ID: LCS-175892	Client ID:					Units: mg/L	Prep Date: 05/09/2013	Run No: 243713			
SampleType: LCS	TestCode: METALS, DISSOLVED	SW6010C	BatchID: 175892				Analysis Date: 05/09/2013	Seq No: 5102114			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9908 0.0100 1.000 0 99.1 80 120 0 0 0

Sample ID: 1305702-001BMS	Client ID:				Units: mg/L		Prep Date: 05/09/2013		Run No: 243713		
SampleType: MS	TestCode: METALS, DISSOLVED SW6010C				BatchID: 175892		Analysis Date: 05/09/2013		Seq No: 5102118		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9141 0.0100 1.000 0.003860 91.0 75 125 0 0 0

Sample ID: 1305702-001BMSD	Client ID:				Units: mg/L	Prep Date: 05/09/2013	Run No: 243713				
SampleType: MSD	TestCode: METALS, DISSOLVED	SW6010C	BatchID: 175892			Analysis Date: 05/09/2013	Seq No: 5102119				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9653 0.0100 1.000 0.003860 96.1 75 125 0.9141 5.45 20

Sample ID: 1305702-001BDUP	Client ID:				Units: mg/L	Prep Date: 05/09/2013	Run No: 243713				
SampleType: DUP	TestCode: METALS, DISSOLVED	SW6010C	BatchID: 175892			Analysis Date: 05/09/2013	Seq No: 5102124				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium BRL 0.0100 0 0 0 0 0 0 0.003860 0 20

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor Golf
 Workorder: 1305845

ANALYTICAL QC SUMMARY REPORT

BatchID: 175942

Sample ID: MB-175942	Client ID:					Units: mg/L	Prep Date: 05/10/2013	Run No: 243798			
SampleType: MBLK	TestCode: METALS, TOTAL	SW6010C				BatchID: 175942	Analysis Date: 05/10/2013	Seq No: 5103962			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	BRL	0.0100	0	0	0	0	0	0	0	0	
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Sample ID: LCS-175942	Client ID:				Units: mg/L	Prep Date: 05/10/2013	Run No: 243798				
SampleType: LCS	TestCode: METALS, TOTAL	SW6010C			BatchID: 175942	Analysis Date: 05/10/2013	Seq No: 5103961				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	1.059	0.0100	1.000	0	106	80	120	0	0	0	
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Sample ID: 1305845-001AMS	Client ID: 13129-MW-26	Units: mg/L				Prep Date: 05/10/2013	Run No: 243798				
SampleType: MS	TestCode: METALS, TOTAL SW6010C	BatchID: 175942				Analysis Date: 05/10/2013	Seq No: 5103964				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	1.033	0.0100	1.000	0.03365	99.9	75	125	0	0	0	
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Sample ID: 1305845-001AMSD	Client ID: 13129-MW-26					Units: mg/L	Prep Date: 05/10/2013	Run No: 243798			
SampleType: MSD	TestCode: METALS, TOTAL	SW6010C	BatchID: 175942				Analysis Date: 05/10/2013	Seq No: 5103965			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	1.013	0.0100	1.000	0.03365	98.0	75	125	1.033	1.92	20	
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Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor Golf
Workorder: 1305845

ANALYTICAL QC SUMMARY REPORT

BatchID: R243706

Sample ID: MB-R243706	Client ID:					Units: mg/L	Prep Date:	Run No: 243706			
SampleType: MBLK	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R243706	Analysis Date: 05/09/2013	Seq No: 5101876			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent BRL 0.0100 0 0 0 0 0 0 0 0 0

Sample ID: LCS-R243706	Client ID:					Units: mg/L	Prep Date:		Run No: 243706		
SampleType: LCS	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R243706	Analysis Date: 05/09/2013		Seq No: 5101877		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.5370 0.0100 0.5000 0 107 90 110 0 0 0

Sample ID: 1305702-001CMS	Client ID:					Units: mg/L	Prep Date:		Run No: 243706		
SampleType: MS	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R243706	Analysis Date: 05/09/2013		Seq No: 5101886		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.5324 0.0100 0.5000 0.009400 105 85 115 0 0 0

Sample ID: 1305702-001CMSD	Client ID:					Units: mg/L	Prep Date:	Run No: 243706			
SampleType: MSD	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R243706	Analysis Date: 05/09/2013	Seq No: 5101888			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.5324 0.0100 0.5000 0.009400 105 85 115 0.5324 0 20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Appendix C: Laboratory Stipulation Letter



AES

Analytical Environmental Services, Inc.,
3785 Presidential Parkway
Atlanta, GA 30340

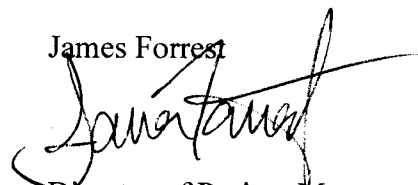
Stipulation of Approval for Commercial Laboratory

According to Georgia State Law (O.C.G.A. 12-2-9) Commercial Rules for Commercial Laboratory Accreditation, any person submitting data to EPD prepared by a commercial laboratory shall stipulate that the laboratory is approved (Chapter 391-3-26-.05). The following information is provided as requested.

Laboratory	Analytical Environmental Services, Inc. (AES) 3785 Presidential Parkway, NE Atlanta, GA 30340 (770) 457-8177
Accredited By:	State of Florida, Department of Health, Bureau of Laboratories; Accrediting NELAP Authority
Accreditation ID:	E87582
Scope:	Clean Water Act – Extractable Organics, General Chemistry, Metals, Microbiology, Pesticides-Herbicides, PCBs, Volatile Organics RCRA/CERCLA – Extractable Organics, General Chemistry, Metals, Pesticides-Herbicides, PCBs, Volatile Organics
Effective:	July 1, 2012
Expires:	June 30, 2013

I further certify that the sample(s) for which this data is being submitted has been handled pursuant to the appropriate chain of custody. Any question regarding this stipulation of approval may be directed to AES at 770 457-8177. Thank you for your business and please do not hesitate contacting us if we can be of further assistance.

James Forrest




Director of Project Management
September, 19 2012


Appendix D: Boring Logs

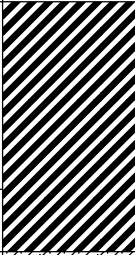

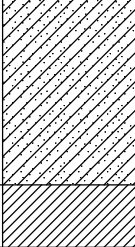

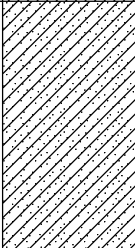

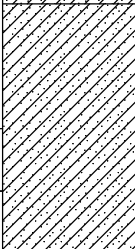

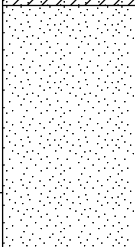



BORING LOG


		Project Name: Former Macgregor Golf Company Project Number: 143327 Project Location: 1601 South Slappey Blvd, Albany GA			Permit Number: NA		Boring No. B-4 Page 1 of 1	
Geologist/Office Brian Steele/Atlanta		Checked By: Tamara Berryman	Borehole Diameter: 4"	Screen Diameter and Type: NA		Slot Size: NA	Total Boring Depth (ft) 10.0 ft.	
Start/Finish Date 11/26/12 - 11/26/12		Drilling Contractor: Betts	Sampling: Split Spoon		Development Method: NA			
Driller: Paul Hornage		Drilling Method: HSA	Drilling Equipment: Truck mounted CME	Ground Surface Elev: NA TOC Elev: NA		Easting: 2292607.4 ft Northing: 566479.8 ft		
Depth (feet) USC Soil Type	Description	Graphic Log			Readings (ppm)	Remarks		
		Sample Int	Lithology	Backfill				
NR	No recovery					Drilled to 10 ft with hollow stem auger (HSA).		
5								
FILL SP/SC	Plastic, 6 ml thick plastic. Solvent/paint odor, black layer. Red SAND with trace CLAY. Dry to moist. Boring Terminated at 10 ft.				77.7	Collected soil sample B-4-9-10'		

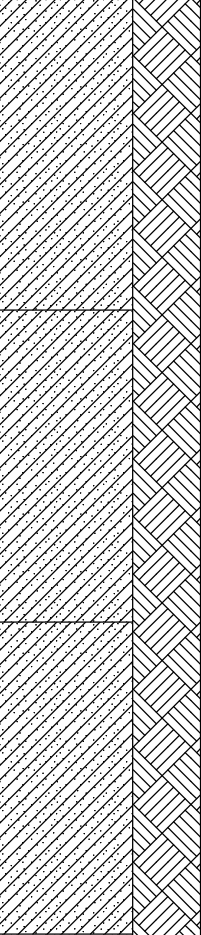
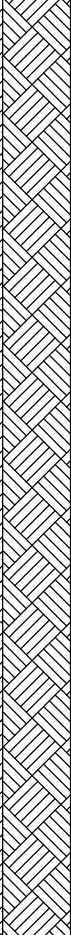
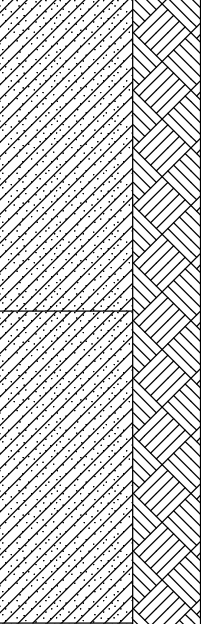
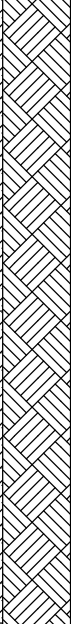
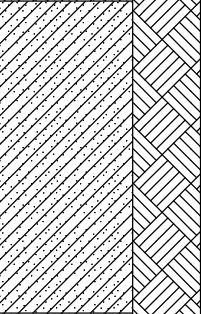
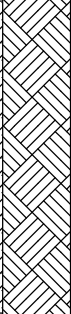
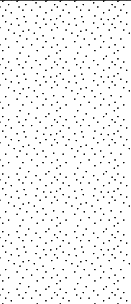
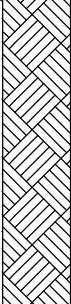
BORING LOG

		Project Name: Former Macgregor Golf Company Project Number: 143327 Project Location: 1601 South Slappey Blvd, Albany GA			Permit Number: NA	Boring No. B-4a Page 1 of 1
Geologist/Office George Skala/Atlanta		Checked By: Tamara Berryman	Borehole Diameter: 2"	Screen Diameter and Type: NA	Slot Size: NA	Total Boring Depth (ft) 20.0 ft.
Start/Finish Date 2/22/13 - 2/22/13		Drilling Contractor: Atlas Geo	Sampling: Continuous Core		Development Method: NA	
Driller: David Hoilett		Drilling Method: Direct Push	Drilling Equipment: Geoprobe 6620DT	Ground Surface Elev: NA TOC Elev: NA		Easting: 2292605.1 ft Northing: 566479.8 ft


Depth (feet)	USC Soil Type	Description	Graphic Log			Readings (ppm)	Remarks
			Sample Int	Lithology	Backfill		
5	CH	Hard compacted CLAY, some Sand. Black staining towards the bottom.				3.4	Drilled to 20 ft with direct push. Collect soil sample B-4a-3-4'
			3.5				
			3.6				
			9.6				
	SC	Black SANDY CLAY, plastic present in soil.				11.5	Collect soil sample B-4a-7-8'
		17.6					
		3.0					
		7.8					
10	CL	Transition to red CLAY and Sand.				5.4	Collect soil sample B-4a-10-11'
			3.6				
			3.2				
			3.3				
15	SC	Same as above, slight odor at 15-16 ft.				4.0	Collect soil sample B-4a-15-19'
	SP	SAND, yellow. Slight odor, with kaolin/chert. Boring terminated at 20 ft.				3.3	
		3.2					
		3.2					
		3.4					

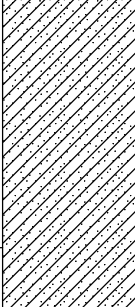
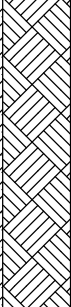
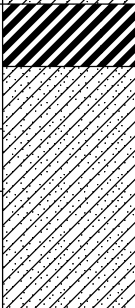
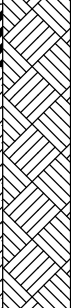
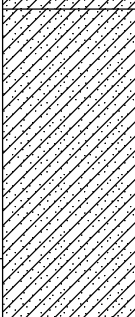
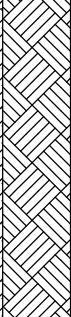
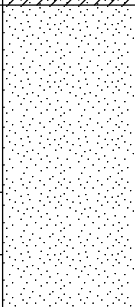
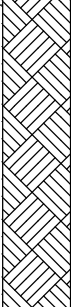
BORING LOG

		Project Name: Former Macgregor Golf Company Project Number: 143327 Project Location: 1601 South Slappey Blvd, Albany GA			Permit Number: NA	Boring No. GP-1 Page 1 of 1
Geologist/Office George Skala/Atlanta		Checked By: Tamara Berryman	Borehole Diameter: 2"	Screen Diameter and Type: NA	Slot Size: NA	Total Boring Depth (ft) 20.0 ft.
Start/Finish Date 2/22/13 - 2/22/13		Drilling Contractor: Atlas Geo	Sampling: Continuous Core		Development Method: NA	
Driller: David Hoilett		Drilling Method: Direct Push	Drilling Equipment: Geoprobe 6620DT	Ground Surface Elev: NA TOC Elev: NA		Easting: 2292605.7 ft Northing: 566485.7 ft


Depth (feet)	USC Soil Type	Description	Graphic Log			Readings (ppm)	Remarks
			Sample Int	Lithology	Backfill		
5	SC	SAND with some Clay, reddish color, very birttle. Blackens towards the bottom, more clay towards bottom.				3.6	Drilled to 20 ft with direct push. Collect soil sample GP-1-4-5' Collect soil sample GP-1-5-6'
			3.5				
			3.8				
			4.1				
			4.1				
10	SC	Black SAND, with fine grained kaolin. Grades into CLAY and SAND towards the bottom.				7.3	Collect soil sample GP-1-5-6'
			19.6				
			7.1				
			4.5				
			4.7				
15	SC	Fine grained SAND with some CLAY, organic staining, no odor.				5.1	Collect soil sample GP-1-14-15'
			7.8				
			8.0				
			8.8				
			8.3				
	SP	Medium grained SAND, no staining. Boring terminated at 20 ft.				9.2	Collect soil sample GP-1-19-20'
			4.1				
			3.6				
			3.3				
			4.1				

BORING LOG

		Project Name: Former Macgregor Golf Company Project Number: 143327 Project Location: 1601 South Slapppy Blvd, Albany GA			Permit Number: NA	Boring No. GP-2 Page 1 of 1
Geologist/Office George Skala/Atlanta		Checked By: Tamara Berryman	Borehole Diameter: 2"	Screen Diameter and Type: NA	Slot Size: NA	Total Boring Depth (ft) 20.0 ft.
Start/Finish Date 2/22/13 - 2/22/13		Drilling Contractor: Atlas Geo	Sampling: Continuous Core		Development Method: NA	
Driller: David Hoilett		Drilling Method: Direct Push	Drilling Equipment: Geoprobe 6620DT	Ground Surface Elev: NA TOC Elev: NA		Easting: 2292599.7 ft Northing: 566481.3 ft


Depth (feet)	USC Soil Type	Description	Graphic Log			Readings (ppm)	Remarks
			Sample Int	Lithology	Backfill		
5	SC	SANDY CLAY, slightly black staining. Brittle.				1.3	Drilled to 20 ft with direct push. Collect soil sample GP-2-4-5'
						1.2	
						1.4	
						1.3	
						1.8	
10	CH	CLAY, stained black.				3.2	Collect soil sample GP-2-7-8'
						2.9	
						15.1	
						7.8	
						9.6	
15	SC	SANDY CLAY.				3.1	Collect soil sample GP-2-14-15'
						3.2	
						3.3	
						3.9	
						4.5	
	SP	SAND towards the bottom, has slight green color. Boring terminated at 20 ft.				6.6	Collect soil sample GP-2-18-19'
						7.9	
						5.3	
						9.8	
						7.1	

BORING LOG

	Project Name: Former Macgregor Golf Company Project Number: 143327 Project Location: 1601 South Slappey Blvd, Albany GA				Permit Number: NA	Boring No. GP-3 Page 1 of 1
Geologist/Office George Skala/Atlanta	Checked By: Tamara Berryman	Borehole Diameter: 2"	Screen Diameter and Type: NA	Slot Size: NA	Total Boring Depth (ft) 20.0 ft.	
Start/Finish Date 2/22/13 - 2/22/13	Drilling Contractor: Atlas Geo	Sampling: Continuous Core		Development Method: NA		
Driller: David Holett	Drilling Method: Direct Push	Drilling Equipment: Geoprobe 6620DT	Ground Surface Elev: NA TOC Elev: NA			Easting: 2292604.9 ft Northing: 566474.7 ft


Depth (feet)	USC Soil Type	Description	Graphic Log			Readings (ppm)	Remarks
			Sample Int	Lithology	Backfill		
5	SC	CLAY with some SAND, some plasticity, some organics. Black color at 4-5 ft.					Drilled to 20 ft with direct push.
			3.5				
			3.4				
			4.0			Collect soil sample GP-3-4-5'	
	SC/CL	CLAYEY SAND, black staining at 7-8 ft, grades into SAND.				4.0	
			5.3				
			6.4			Collect soil sample GP-3-7-8'	
			11.1				
			7.7				
			7.3				
10	SC	SAND with some CLAY, some kaolin.				8.0	
			10.3				
			10.1				
			11.3			Collect soil sample GP-3-14-15'	
			11.4				
			11.3				
			12.3			Collect soil sample GP-3-17-18'	
			15.1				
			14.6				
			14.5				

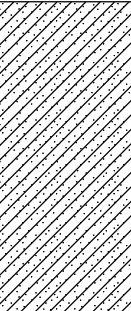
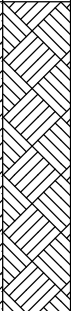

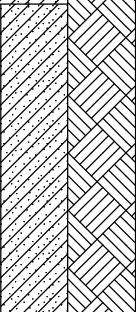
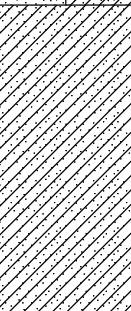
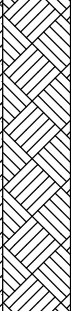

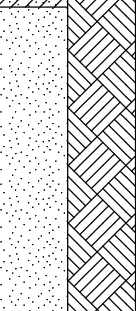
BORING LOG

		Project Name: Former Macgregor Golf Company Project Number: 143327 Project Location: 1601 South Slappey Blvd, Albany GA			Permit Number: NA	Boring No. GP-4 Page 1 of 1
Geologist/Office George Skala/Atlanta		Checked By: Tamara Berryman	Borehole Diameter: 2"	Screen Diameter and Type: NA	Slot Size: NA	Total Boring Depth (ft) 20.0 ft.
Start/Finish Date 2/22/13 - 2/22/13		Drilling Contractor: Atlas Geo	Sampling: Continuous Core	Development Method: NA		
Driller: David Hoilett		Drilling Method: Direct Push	Drilling Equipment: Geoprobe 6620DT	Ground Surface Elev: NA TOC Elev: NA		Easting: 2292610.9 ft Northing: 566479.8 ft


Depth (feet)	USC Soil Type	Description	Graphic Log			Readings (ppm)	Remarks
			Sample Int	Lithology	Backfill		
5	SP	SAND with some kaolin, organic matter present. Transition to red SAND at 4 ft.				10.5	Drilled to 20 ft with direct push.
						10.8	
						11.2	
						14.8	
						14.6	
10	SC/CL	SAND, no organic staining. Soft, some clay content.				12.8	Collect soil sample GP-4-3-4'
						13.9	
						14.7	
						16.3	
						16.6	
15	SC	Hard SANDY CLAY, medium grained with kaolin.				19.3	Collect soil sample GP-4-9-10'
						19.7	
						20.1	
						18.6	
						21.3	
	SP	SAND, greenish color. White kaolin present. Boring terminated at 20 ft.				18.3	Collect soil sample GP-4-14-15'
						17.2	
						19.1	
						17.6	
						18.1	

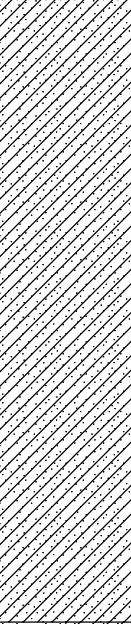





BORING LOG

		Project Name: Former Macgregor Golf Company Project Number: 143327 Project Location: 1601 South Slappey Blvd, Albany GA			Permit Number: NA	Boring No. GP-5 Page 1 of 1
Geologist/Office George Skala/Atlanta		Checked By: Tamara Berryman	Borehole Diameter: 2"	Screen Diameter and Type: NA	Slot Size: NA	Total Boring Depth (ft) 20.0 ft.
Start/Finish Date 2/22/13 - 2/22/13		Drilling Contractor: Atlas Geo	Sampling: Continuous Core		Development Method: NA	
Driller: David Hoilett		Drilling Method: Direct Push	Drilling Equipment: Geoprobe 6620DT	Ground Surface Elev: NA TOC Elev: NA		Easting: 2292593.7 ft Northing: 566481.1 ft


Depth (feet)	USC Soil Type	Description	Graphic Log			Readings (ppm)	Remarks
			Sample Int	Lithology	Backfill		
5	SC	Red CLAY and SAND, brittle.				18.6	Drilled to 20 ft with direct push. Collect soil sample GP-5-4-5'
			18.3				
			18.5				
			19.0				
			22.0				
10	SP/SC	Stained black SAND with red Sandy Clay. Odor at 7-8 ft.				16.3	Collect soil sample GP-5-7-8'
			15.7				
			54.3				
			17.3				
			20.1				
15	SC	Saturated CLAY and SAND, staining around 10 ft.				10.8	Collect soil sample GP-5-12-13'
			18.7				
			18.8				
			15.8				
			17.1				
	SP	Compacted m SAND, greenish color. Boring terminated at 20 ft.				14.9	Collect soil sample GP-5-19-20'
			15.6				
			14.1				
			13.8				
			18.6				

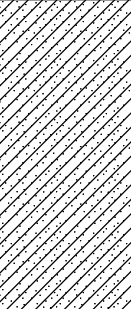

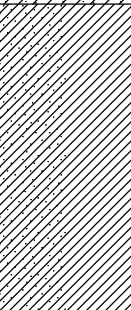

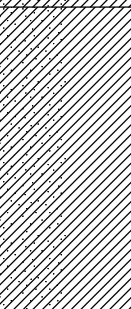

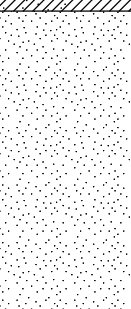

BORING LOG

		Project Name: Former Macgregor Golf Company Project Number: 143327 Project Location: 1601 South Slappey Blvd, Albany GA			Permit Number: NA	Boring No. GP-6 Page 1 of 1
Geologist/Office George Skala/Atlanta		Checked By: Tamara Berryman	Borehole Diameter: 2"	Screen Diameter and Type: NA	Slot Size: NA	Total Boring Depth (ft) 20.0 ft.
Start/Finish Date 2/22/13 - 2/22/13		Drilling Contractor: Atlas Geo	Sampling: Continuous Core		Development Method: NA	
Driller: David Hoilett		Drilling Method: Direct Push	Drilling Equipment: Geoprobe 6620DT	Ground Surface Elev: NA TOC Elev: NA		Easting: 2292605.7 ft Northing: 566491.2 ft


Depth (feet)	USC Soil Type	Description	Graphic Log			Readings (ppm)	Remarks
			Sample Int	Lithology	Backfill		
5	SC	CLAY and SAND, red. No plasticity.				9.8	Drilled to 20 ft with direct push. Collect soil sample GP-6-2-3' Collect soil sample GP-6-8-9'
						8.5	
						10.3	
						9.1	
						8.6	
						6.7	
						7.8	
						8.4	
						10.1	
						8.6	
10	SP/SC	CLAY and SAND, red. No plasticity. Transition to SAND with slight CLAY.				10.2	Collect soil sample GP-6-14-15'
						9.5	
						10.5	
						10.6	
						11.0	
15	SP/SC	CLAY and SAND, red. No plasticity. At 18 ft, SAND color change to yellow. Some kaolin. Boring terminated at 20 ft.				7.5	Collect soil sample GP-6-19-20'
						7.8	
						7.5	
						8.9	
						8.9	

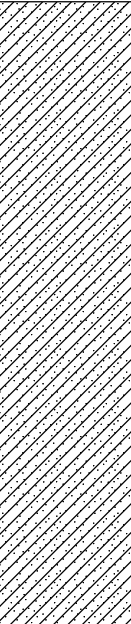

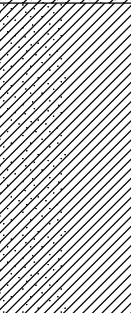

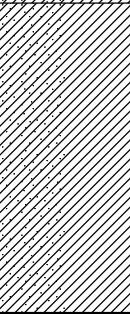

BORING LOG

		Project Name: Former Macgregor Golf Company Project Number: 143327 Project Location: 1601 South Slappey Blvd, Albany GA			Permit Number: NA	Boring No. GP-7 Page 1 of 1
Geologist/Office George Skala/Atlanta		Checked By: Tamara Berryman	Borehole Diameter: 2"	Screen Diameter and Type: NA	Slot Size: NA	Total Boring Depth (ft) 20.0 ft.
Start/Finish Date 2/22/13 - 2/22/13		Drilling Contractor: Atlas Geo	Sampling: Continuous Core		Development Method: NA	
Driller: David Hoilett		Drilling Method: Direct Push	Drilling Equipment: Geoprobe 6620DT	Ground Surface Elev: NA TOC Elev: NA		Easting: 2292616.3 ft Northing: 566479.8 ft

Depth (feet)	USC Soil Type	Description	Graphic Log			Readings (ppm)	Remarks
			Sample Int	Lithology	Backfill		
5	SC	CLAY and SAND, with organic matter, heavily compacted, hard, non plastic.				8.3	Drilled to 20 ft with direct push. Collect soil sample GP-7-3-4'
			8.3				
			7.2				
			9.1				
			8.3				
10	SC/CL	SAND with some CLAY, red. Dark with organic color.				7.4	Collect soil sample GP-7-9-10'
			6.7				
			6.9				
			11.1				
			15.2				
15	SC/CL	SAND with some CLAY, light yellow.				8.4	Collect soil sample GP-7-11-12'
			9.9				
			8.0				
			9.0				
			8.8				
			12.1				
			11.4				
	SP	Cherty SAND, hard, brittle. Boring terminated at 20 ft.				15.3	Collect soil sample GP-7-17-18'
			10.9				
			11.1				

BORING LOG

		Project Name: Former Macgregor Golf Company Project Number: 143327 Project Location: 1601 South Slappey Blvd, Albany GA			Permit Number: NA	Boring No. GP-8 Page 1 of 1
Geologist/Office George Skala/Atlanta		Checked By: Tamara Berryman	Borehole Diameter: 2"	Screen Diameter and Type: NA	Slot Size: NA	Total Boring Depth (ft) 20.0 ft.
Start/Finish Date 2/22/13 - 2/22/13		Drilling Contractor: Atlas Geo	Sampling: Continuous Core		Development Method: NA	
Driller: David Hoilett		Drilling Method: Direct Push	Drilling Equipment: Geoprobe 6620DT	Ground Surface Elev: NA TOC Elev: NA		Easting: 2292606.2 ft Northing: 566469.7 ft

Depth (feet)	USC Soil Type	Description	Graphic Log			Readings (ppm)	Remarks
			Sample Int	Lithology	Backfill		
5	SC	CLAY and SAND, brittle and plastic. Slight staining and organic matter.				5.1	Drilled to 20 ft with direct push. Collect soil sample GP-8-3-4'
						5.6	
						6.3	
						6.4	
						5.7	
						5.7	
						5.9	
						7.2	
						7.9	
10	SC/CL	CLAY and SAND, brittle and plastic. Slight staining and organic matter. Increasing light yellow m SAND content at 12 ft.				9.0	Collect soil sample GP-8-9-10'
						4.6	
						8.5	
						12.4	
						14.2	
15	SC/CL	CLAY and SAND, brittle and plastic. Boring terminated at 20 ft.				14.5	Collect soil sample GP-8-14-15'
						9.7	
						13.1	
						12.3	
						9.8	
						14.1	